The Western Journal

OF

MEDICINE AND SURGERY.

NOVEMBER, 1855. NEW SERIES. VOL. IV.—No. 5

ART. I.—A FATAL CASE OF VOMITING IN THE NINTH MONTH OF PREGNANCY.

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VOMITING during pregnancy is of such frequent occurrence that it is regarded as one of the strongest presumptive signs of that condition. It usually occurs in the first months of pregnancy, the attack generally coming on in the morning, but it is not always confined to these periods; for it may occur at any time during the term of utero-gestation, or at any hour during the day or night. After the first and second months it occurs most frequently, perhaps, in the eighth and ninth months; when, in addition to the reflex action of the nervous system, which induces it in the early stage, encroachment of the enlarged uterus upon the abdominal organs acts as an exciting cause.

Vomiting in pregnancy is not always as harmless a symptom as the indifferent manner in which it is usually regarded might lead one to suppose. It sometimes constitutes a formidable malady. DUBOIS speaks of having met with twenty fatal cases of vomiting in pregnancy. There are also a number of other similar cases on record. Professor STOLTZ states that three out of four cases under his observation proved fatal.

On the 27th of May last I was called to see Mrs. A., aged about twenty-three years, recently from Mississippi, eight and a half months advanced in pregnancy with her second child. She told me she had suffered with distressing acidity of the *primæ viæ* during her whole pregnancy, for which she had taken large quantities of magnesia, chalk, etc. The acidity and burning of the stomach became more intolerable as pregnancy advanced, and was attended with occasional vomiting and sickness. On the day previous to my visit she was attacked with vomiting which had been almost incessant through the day and night, alternated with intensely burning eructations. The tongue was coated, bowels constipated, very slight epigastric tenderness, pulse 100 per minute, and feeble, surface natural.

The treatment employed in this case was calomel in small and repeated doses, with anodynes, alkalies, pellets of ice, counter-irritants, and all such remedies as are known usually to allay vomiting, almost all of which were rejected as promptly as they were given. Mercury produced its effects on the gums and secretions; the bowels were moved in the course of thirty-six hours by means of suppositories of soap, after repeated injections had failed; the discharges were consistent and bilious but without any abatement of vomiting.

Febrile symptoms gradually increased from day to day as did also the intolerance of the stomach. Everything that was swallowed, even to a sip of cold water or a pellet of ice, was instantly rejected. The only respite that could be obtained from this distressing symptom was by total abstinence from everything in the shape of food or drink. I soon became convinced of the gravity of the case with which I had to contend, and that the only safety for my patient consisted in premature labor, which I had determined to induce, as I thought, in time to save her. I had the operation under consideration on the sixth day of the disease, and intended to procure a consultation on the following morning; but on that evening I was summoned in great haste to attend her in labor. I found her delivered, as her mother informed me, by one single and protracted pain, of a nearly mature male child. The secundines having been expelled with the child I found the womb firmly contracted on itself. There was no hemorrhage, and

she had lost but little blood in the labor. She was quite comfortable, and we were soon gratified to find the stomach quiet; she did not vomit after the expulsion of the child. At 7 o'clock, P. M., I gave her morphine to procure rest, and ordered brandy panada, and weak animal broths, which were easily retained.

On the following morning I learned that she had slept a little, though she had passed rather a restless night. I found the evidences of prostration, which before had not been at all alarming, increasing rapidly; pulse 130 per minute, vertigo and slight delirium; restless and anxious appearance of countenance; bowels had not been moved. Continued the morphine, brandy, and nourishment, with the addition of 2 grs. of quinine every three hours. I visited her several times during the day but found no amendment in her condition. She continued to sink, and died on the morning of the 3d of June, eight days from the time the vomiting had set in, and about thirty-six hours after the birth of her child.

In reference to the induction of premature labor, it seems to be according to the voice of the profession and of humanity, if indeed it involves the life of the fœtus, provided the safety of the mother imperatively demands it. But this case ran so speedily to a fatal exhaustion, and the evidences of that condition were so slight previous to labor, that I did not suspect immediate danger; hence the operation was delayed, and finally not performed because nature assumed the responsibility, and expelled the child at a time when, in my judgment, the circumstances were altogether favorable to her recovery.

November 3, 1855.

Bibliographical Notices.

ART. II.—*Yellow Fever, considered in its Historical, Pathological, Etiological, and Therapeutical Relations, including a Sketch of the Disease as it has occurred in Philadelphia, from* 1699 *to* 1854, *with an examination of the connections between it and the fevers known under the same name in other parts of Temperate as well as in Tropical Regions.* By R. LA ROCHE, M. D., Member of the American Philosophical Society; of the American Medical Association; Fellow of the College of Physicians of Philadelphia; Corresponding Member of the Imperial Academy of Medicine, and Foreign Associate of the Medical Society of Emulation, of Paris; of the Academies of Sciences of Turin, Copenhagen, Stockholm, Nancy, and New Orleans, of the Medical Societies of Naples, Marseilles, Lyons, etc. In 2 vols. Philadelphia: Blanchard & Lea. 1855.

A question in regard to yellow fever which, just at this time, is exciting special concern, is the extent to which the epidemic is likely to spread in a northern direction. It has prevailed as far north as Memphis during the present season; will it spread farther in future years? Hitherto it has been regarded as a disease of low, flat localities in hot latitudes, but it has on many occasions reached far into the temperate zone. Dr. La Roche says:

"Until recently, the river Amazon, which divides Brazil from Guiana, formed the boundary of the disease south of the equatorial line; for, although it is said to have prevailed at Olinda from 1687 to 1694,* and to have shown itself as far as Montevideo† in the beginning of the present century, the latter circumstance is open to some doubt; while, in Brazil, from the close of the 17th century to the middle of the present, the disease was not observed. Since 1850, it has invaded Rio Janeiro, Bahia, Pernambuco, and other places of that country. It is, in greater measure, a stran-

* Ferreyra da Rosa, op. cit. † Humboldt, Nouvelle Espagne, p. 761.

ger to the Pacific, having prevailed but once at Panama,* twice at Guayaquil, and once at Callao. It does not appear in the East Indies; the fever described by Wade, Fontane Lind (of Windsor), Johnson, Twining and other writers appertaining to the class of common bilious remittents. It has never prevailed in China, Cochin-China, Singapore, Siam, Ceylon; it has prevailed only occasionally on the African coast, Senegal, and the Gold Coast, and has but three times, in the space of eighty-six years, showed itself in Cayenne.

"Within those limits, it has in some one or more places originated and prevailed to a greater or less extent—occasionally or frequently—either as an endemic or as a mild or wide-spreading epidemic.† Beyond these it never shows itself; and though—whether north or south, east or west—it does not reach the point at which common malarial fevers stop, it approximates to these diseases, so far, especially, as its northern or western extension is concerned, in being circumscribed within certain bounds; for they, too, have their limits. The effect in both instances is due to modifications in the same morbific agencies."‡

Dr. E. H. Barton, who has been a careful observer of the progress of yellow fever, states that within the limits of the zone above pointed out, the disease usually commences its epidemic career in the South, and advances gradually towards the North. Starting in the West Indies, South America, or Mexico, one year with another, about the first of May, it is two months reaching New Orleans, and as a general rule does not break out as an epidemic in our middle States or in Europe before the latter part of July or the first of August. Temperature seems to be the controlling cause, but it must be admitted that the etiology of the disease is still obscure. The mean summer heat of Philadelphia and of New York is not less in latter years than it was at the close of the last century when the fever was so rife in those cities. The towns on the Mississippi have the same climate now that existed when they were founded, and yet yellow fever, not dreaded then, has within a few years become an annual scourge of those communities. Climate alone will not account for the change. Heat and moisture, and even favoring vegetable decomposition hardly afford a satisfactory explanation. The pestilence is enlarging its dominions, but what it is that has imparted to it this

* Humboldt, loc. cit.

† De la Condamine, Voyage à l'Equateur, Paris, 1751, vol. iv. Ulloa, Voyage Historique de l'Am. Mérid., i. p. 149, 1752. Jameson, Rept. of San. Con. of New Orleans, 1853, p. 141.

‡ Leblond, Obs. sur la Fièvre jaune, p.

unwonted activity, has not been explained. Will this augmented activity continue, and will the fever extend its march towards the North, and invade places hitherto secure from its incursions? Time only can return an answer to this question, but the possibility of such an occurrence imparts an interest to yellow fever which the subject never before possessed with the profession.

Dr. La Roche gives a minute account of the symptoms of yellow fever, in reading which one is particularly struck with the protean character of the disease. Unlike cholera, the features of which are so uniform, few cases of yellow fever exactly resemble each other. It is impossible to present a satisfactory view of the symptoms in the limits at our disposal, and so we pass the subject over entirely, referring the reader to the work for full information.

Yellow fever, Dr. La Roche continues, is everywhere the same disease, in tropical and in temperate climates, and in this opinion he is sustained by the general testimony of those who have written on the subject. There are those, however, who insist that the fever in tropical regions is a disease entirely different from that which has been designated yellow fever in temperate latitudes. It would seem that this is a question not easily decided, seeing that the fever is one of so variable a character, and yet we have no doubt that it is essentially the same disease wherever it appears. It may not be practicable in a few words to describe its pathognomonic symptoms, but that it has features by which those who have seen it once never fail to recognize it afterwards, is the testimony of nearly all who have made observations on the subject. Dr. La Roche devotes several pages to the proof of this position, and by comparing the tableaux of the phenomena presented by the fever in the various regions where it has prevailed, he has rendered the point exceedingly clear.

He next proceeds to examine in detail the phenomena presented by the several organs of the body, and first those of the circulatory system. The blood has attracted much attention in yellow fever. Dr. Rush noticed in the epidemic of 1793, that the usual separation into serum and crassamentum did not take place, and that in other cases where serum was separated, it was of a yellow color; while in others, again, the blood was as sizy as in pneumonia or rheumatism, and still in others, was of a dark color, and

as fluid as molasses. In some patients, he adds, "the blood in the course of the disease, exhibited nearly all the appearances which have been mentioned. They varied according to the time in which the blood was drawn, and the nature and force of the remedies which had been used." Dr. Physick "found the blood in the heart in a fluid state, and similar to that of persons who have been hung or struck by lightning." Numerous observers testify to the fluid condition and discolored appearance of the blood, when issuing from the natural outlets of the system in the closing stages of the disease. In the epidemic of 1805, in Philadelphia, Dr. Caldwell remarked that the blood which flowed in hemorrhage was never capable of firm coagulation, thereby evidencing "that its vitality was nearly extinguished," and that in many cases it was dissolved.

"A diseased condition of the blood, similar to the one noticed in the yellow fever of this city, had long before been recorded, with more or less minuteness, by writers in this and other countries. Lining states that, in the fever of Charleston, 'the blood saved at venesection had not any inflammatory crust. In warm weather it was florid, like arterial blood, and continued in one soft homogeneous mass, without any separation of the serum after it was cold. When there was any separation, the crassamentum was of too lax a texture.'* In a subsequent page, he speaks of a partial dissolution of the blood in the after-stages of the disease, as exhibited in the fluid discharged in various hemorrhages.† Moultrie states that, in the first stage, the blood taken in venesection is dissolved, the crassamentum is broad, thin (*crassamentum ejus latum minimeque profundum*), floating on the surface. It is of less firmness than in the natural state, and exhibits, at times, livid spots on the surface. In the last stage it is black, dissolved, and in a state of putrefaction (p. 7). From that day to this, all writers on the fevers of this country, with scarcely one exception, mention incidentally or call special attention to the altered state of the blood throughout the whole course of the disease, or during its latter stages; its defective coagulability, the absence of inflammatory crust; the softness of the coagulum; the absence of separation; the peculiar appearance or small proportion of the serum; the dark color of the whole mass; its altered consistence, etc."‡

* Edinb. Med. Essays and Obs., ii. 415. † Ibid., p. 422.

‡ S. Brown, p. 15; Valentin, p. 182; Irvine, p. 25; Miller, p. 62; Mitchell, Med. Mus., i. 6, 7; Kelly, Am. Jour. (N. S.), xiv. 389; Harrison, N. O. J., ii. 139; Stone (F. of Natchez), N. O. J., vi. 571; Ib., N. O. J., ii. 181; Cartwright, Med. Rec., ix. 26-7; Drysdale, Med. Mus., i. 138; Gros, F. of N. O. in 1817, p. 11; Dalmas, p. 16; E. H. Smith, p. 122; Archer, Med. Rec., v. 68; Nott, Am. J., N. S., ix. 281; Townsend, p. 196; Cooke, N. O. J., x. 621; Lewis, ib., i. 301.

Some of the conclusions at which Dr. La Roche arrives on a survey of all that has been written on this subject are:—that in some instances the blood, during the first stage of the fever is unaltered, in color, the firmness of its crassamentum, or its power of coagulation; that more generally its coagulability is lost, or greatly impaired; that in some cases it is found sizy, and even cupped; that more frequently it is neither sizy nor cupped; that it is sometimes of a florid red color, at the outset of the disease, but always grows dark as the malady advances; that in some instances it has been found, even at the outset, quite fluid and of thin consistence, while in others it is represented to have been thicker than in health.

"But these are not the only changes that are found to occur in the blood of yellow fever. M. Chassaniol, whose residence, during several years, at Guadaloupe, afforded him ample opportunities of investigating the subject, has recently communicated the result of sundry experiments on the blood, instituted at his request by an able chemist, and which led to the discovery that this fluid after death, and most probably in the latter stages of the disease, contains a notable quantity of urea. In one case, 50 gram. of blood, taken from the heart a few hours after death, gave 0·24 of that substance, and, in another, 60 grs. gave 0·29. In stating these results, the operator remarks that the blood examined must have contained a larger quantity of urea than here mentioned, as a portion, doubtless, escaped with the albumen at the moment of coagulation. M. Chassaniol is of opinion that the phenomena of the second stage are due to the poisoning of the blood by this substance.* It may not be improper to remark that urea has been detected in the blood of the relapsing fever of Scotland, as also in the serum contained in the ventricles of the brain;† that, in this disease, as in the yellow fever, the urinary secretion is impaired, and that in the former many of the symptoms of the last stage have been satisfactorily traced to the poisoning action of that substance on the blood, and of the latter on the brain and other important organs. Nor should we lose sight of the fact, that urea usually exists in increased quantities in cholera—the amount differing considerably in the several stages of the disease; that it is small in quantity in the intense stage of collapse; increases during reaction, and is in excess when consecutive febrile symptoms occur.‡ In this disease, as in yellow and relapsing fever, the urinary secretion is greatly impeded, and we naturally

* Compte rendu de l'Ac. des Sci. Meeting of 12th Dec., 1855.
† Henderson, Edinburg Journ., lxxii. 223, etc.
‡ Reports on Epid. Cholera, Roy. Coll. of Phys., 2d Rep. by D. Gull, pp. 51–3.

infer that, in all, the presence of urea in the blood is due, in part at least, to want of elimination of it through means of its natural emunctory, and, to some degree, to a disordered condition of the secretory function."

Under the head of "circulatory system," our author treats at length of the pulse and hemorrhages, and then proceeds to describe the state of the skin, as regards temperature, color, sensibility, secretion, odor, and diseases. Next the "digestive organs" are considered, and in connection with them that remarkable phenomenon of yellow fever, black vomit, which by many writers has been held to be the most distinctive, the pathognomonic symptom of the disease. From the prominence of this feature it is that the Spaniards have denominated yellow fever *vomito prieto.* Nevertheless, black vomit is not peculiar to this fever, nor is it of itself enough to stamp the case in which it occurs as one of yellow fever. Black vomit may result from the action of various poisons, or from the introduction of putrid substances into the cirlulation, and is occasionally an attendant upon puerperal and other fevers. Dr. Dickson says he has met with it in bilious remittent fever; Cleghorn saw it in the tertian fever of Minorca; and Andral remarked it in some cases of fever which occurred, in 1822, in the hospitals of Paris. It has been met with in cases of typhus, in oriental plague, in *coup de soleil*, in colic, and in a case of psoas abscess. The writer of this article attended a case of Bright's disease in a child, a few weeks since, in which there was vomiting of a black matter several days before the death of the patient.

These examples will suffice to show that black vomit is an occasional occurrence in many affections differing widely from yellow fever, and therefore not of itself sufficient to characterize that disease. And yet it is far more frequently an attendant upon this fever than upon any other complaint. It usually makes its appearance at the opening or about the middle of the second stage of the disease, sometimes at the decline of the first stage, more rarely during the first paroxysm; in other words, about the fourth or fifth day. It is a highly unfavorable sign; more so than the jaundiced condition of the skin, but yet not always a fatal symptom, though, according to Dr. Fenner, not more than one in a hundred recovers where it is distinctly pronounced.

"The black vomit, notwithstanding its name, is rarely of a black color. As seen in this city, it is more frequently of a dark-brown, bister, chocolate, or umber hue. In some instances, the color approaches to a dark slate, or to a muddy claret. It is of two kinds. The one consists of a number of dark, flaky particles, which have been not unaptly compared to butterfly or bees' wings, and which assume gradually the appearance, with more or less distinctness, of the grounds of coffee, of soot, or finely-powdered charcoal, floating in a quantity more or less considerable, of thin, glairy fluid bearing a slight resemblance to a weak infusion of flaxseed or green tea. The latter fluid, when filtered, differs slightly in color, being limpid like water, of a deep brandy or rum color, yellowish or light green. The afore-mentioned flakes or striæ are at first, or throughout the milder forms of the disease, limited in point of number, and of a light or grayish slate or chocolate tinge. But as the disease advances, and especially in the more malignant cases, they increase in number, and become darker and darker till the whole appears uniformly blackish or even black. The fluid, when completely formed, though homogeneous in appearance when discharged, separates soon, on standing, into two parts; the one consisting of the flaky or coffee-ground matter already mentioned, and the other of the fluid in which they were held in suspension. This flaky matter, which in some cases seems collected in masses of greater extent and entangled in mucus, and at others is divided very minutely and equally mixed, after subsiding to the bottom of the vessel, either in distinct particles or in the form of a dark powder, is readily incorporated with the fluid by the least agitation. When the black vomit is kept a long while, its constituents become perfectly separated, but when shaken and reincorporated, they show less disposition to separate again. In some instances, the quantity of the fluid portion is, from the outset to the close of the attack, very large compared to the solid particles. In others, the reverse is the case; the substance vomited, though presenting all the characteristic features of the coffee-ground or granular matter, being almost or completely deprived of its fluid attendant. In a case I had occasion to see in July, 1853, with Dr. Keating, the black vomit presented that character. In another case, the proportion of solid matter in the fluid thrown up was very small; while, on dissection, sixteen hours after death, the stomach was found to contain about six ounces of thick coffee-ground or granular matter, with scarcely any admixture of fluid.

"The other form of the black vomit is more homogeneous in character, and presents the appearance of dark-colored inspissated mucus or thin tar, or of a thick mixture of molasses and water. In some instances, the matter vomited consists of grumous or dark-colored blood, fluid or coagulated, without admixture of cof-

fee-ground particles or pale fluid;* while in others, again, the matter described above is mixed with coagula of more or less pure blood; or, failing to maintain the character above described, assumes more or less the appearance of blood. In some instances, the discharge towards the termination of the disease becomes nearly sanguineous."

What is the source and nature of black vomit? This question has excited much prolix discussion, but we pass over it all to give the views of our author respecting it, which will be gathered from the following extract:—

"Enough has now been said to prove beyond doubt that the black vomit is neither altered bile nor the result of a secretory action on the part of the gastro-intestinal capillary vessels. In view of this, and taking into consideration various facts to which attention is next to be called, we shall be led to the conclusion that it is nothing but blood in a peculiar state of alteration. That it is the product of the stomach itself, when ejected from that organ, or of other surfaces whence it may proceed—the intestinal, urinal, pleural, peritoneal, etc., has been shown. That the black vomit, or a fluid like it, proceeds from the capillary vessels of these parts; that it may be, and has been pressed out of those vessels after death, and is often seen then and during life oozing out of the capillaries of parts accessible to sight, as the fauces, nostrils, skin, and eyes, are facts which, as we have seen, are too well established to be denied, and must of themselves go far to prove the sanguinous nature of the fluid, especially when we bear in mind the reasons assigned for rejecting the idea of its being the product of a secretory action of those vessels. For, if we refuse to admit that the fluid issuing from or pressed out of these has been secreted by them, we have no alternative but to regard it as blood; the only substance contained in those vessels, whether in health or disease. To the same conclusion we naturally arrive when we take into consideration the fact that the black vomit is the product, in some cases, of gastric inflammation occasioned by the ingestion of acrid poisons, or by other causes; and we know that in inflammation resulting from such agencies—or indeed from any agency—the vessels are engorged with blood, and nothing else; and that, therefore, what proceeds from them, whatever peculiar appearance it may assume, must be blood also. The same must be true as regards the contents of the capillary vessels in inflammation or congestion of the stomach or other parts in yellow fever. If we find these filled with red or dark fluid, and

* Cathrall, Analysis of Black Vomit, pp. 4, 6, 7; Rush, Yellow Fever of 1793, p. 61; Wood's Practice, i. 301; Monges, N. A. Med. and Surg. Jour., ii. 57.

if their engorgement and dark color are relieved by the discharge of that fluid, we may safely infer that the latter was blood, for hemorrhage is one of the common modes in which inflammation and congestion have a tendency to terminate; and if the red or dark fluid which occasions the relief in ordinary cases is admitted to be of the nature in question, there can be no reason to doubt that when the effect is obtained in yellow fever, the fluid discharged is of a similar kind. Nor is this all! We have seen that black vomit very generally adheres to those portions of the mucous membrane of the stomach or intestines that are inflamed or congested, or from which it was effused, leaving other parts uncovered. In this we have a striking proof of its analogy to real blood, which exhibits a like disposition to adhere to inflamed surfaces from which it had exuded."

That this is the nature of black vomit is still more satisfactorily proved by the fact that the blood, by the addition of muriatic acid, may be made to assume the characteristic appearance of this fluid. And, to establish the position beyond the possibility of doubt, the microscope has revealed in black vomit the presence of unchanged blood-globules, and of a mass of matter resulting from their disintegration. "In a word, the microscope enables us to perceive that the sedimentary portion of the black vomit is composed almost entirely of blood—corpuscles in various stages of degradation."

We must pass over several chapters treating of the tongue, pain, respiration, countenance, urine, and state of nervous system in yellow fever, to give a summary of the anatomical characters that pertain to the disease. The post mortem appearances are:—discolored surface, stomach containing matter similar to that vomited during the latter stage of the disease, the mucous membrane generally diseased; intestines, for the most part, similarly affected; liver abnormal, yellow, brown, red, purple, bluish, slate, chocolate, or livid, but not always; spleen generally darker than usual, enlarged, and friable; kidneys generally diseased; brain, spinal cord, lungs, for the most part, normal. Do any of these appearances belong in a special manner to yellow fever? Louis thought he had succeeded in establishing that the peculiar condition of the liver is so to be regarded, but the testimony against him is irrefragable. What, then, are the anatomical characters of yellow fever? Dr. La Roche would name the following as best entitled

to that rank:—a dark mahogany color of the skin; petechial condition of the gastric mucous membrane; black matter in the cavity of the stomach and bowels; a yellow discoloration and fatty degeneration of the liver; an albuminous state of the urine.

We cannot stop to make any abstract of the chapters on critical days and critical efforts, type of yellow fever, complications, duration, prognosis, and incubation, which are as full and satisfactory as any others in the elaborate work, but pass on to notice some of the last topics discussed in the first volume. One of these is the mortality of yellow fever. Dr. La Roche reviews the several epidemics which have desolated Philadelphia, and thus remarks:—

"If now we sum up the facts embraced in the foregoing statements, we shall find that exclusive of the deaths that occurred from sporadic cases in 1796, 1806–7–8, and other years, and laying aside those seasons relative to which we have no precise information, the fever has caused a loss in Philadelphia, from 1699 to the present day, during eleven visitations, of not less than twelve thousand seven hundred and fifty-one individuals, being on the average of eleven hundred and fifty-five each sickly year. In the four epidemic seasons of 1793–7–8–9, it caused a loss of ten thousand and thirty-eight. When we inquire into the ratio of mortality to the population, basing our calculations only on the information we possess relative to a limited number of years, we find it to have been 1 in 137.43 of the entire inhabitants, and 1 in 128.94 of those who remained exposed to the infection. The three epidemics of 1793, 1797, and 1798, alone give an average of 1 death in 14.24 of the entire population, and 1 in 10.03 of those that remained. The mortality among those affected, estimating it from the results recorded in each epidemic year, from 1793 downwards, varied from 1 in 1.2 (1819) to 1 in 3.86 (1805), giving an average for all those epidemics of 1 in 2.12. The loss at the hospital alone, during the epidemics of 1793, 1797, 1798, 1799, and 1803, the only years in which we find the admissions recorded, varied from 1 in 1.68 (1799) to 1 in 2 (1803), with an average for the six seasons of 1 in 1.867.

"From these results, the conclusion is inevitable that the yellow fever, as often as it has appeared among us, has occasioned as large a mortality, in proportion to the whole population, or to that portion of it on which it more particularly exercised its action, as it has been found to produce in any part of the United States or elsewhere. Few cities beyond the tropics—New Orleans, Charleston, and one or two others excepted—have been as repeatedly visited by the fever as Philadelphia was prior to 1820. In

few has it spread more extensively than it did during some of our epidemics; and certainly in none, within the limits of this country, has it assumed a more malignant garb, and given rise to a greater ratio of mortality among those attacked. Nay, it may be doubted whether the records of West Indian or European epidemics exhibit more than a few instances in which the disease has proved more extensively destructive to human life. But it is to be borne in mind that the number of cases reported or estimated at each return of the disease in all probability falls far short of the true one. In all seasons, many—very many, indeed—of the mild ones are not taken heed of by their medical attendants, the health officers, or the public at large. They recover, and nothing is said about them. I know full well that such was the case in 1820 and in 1853, and there is no doubt that similar occurrences took place in former epidemics. Had all these cases been reported, and had our calculation of the mortality been based on the full amount of the individuals affected, the result would have been less painful. But, after making every allowance possible for the number of such omissions, it is not to be concealed that the proportionate mortality has ever been considerable. Painful, therefore, as the avowal may be, every candid Philadelphian must admit that much as some writers among us have glorified themselves for their extraordinary success in the management of the disease, the facts that have been laid before the reader justify the conclusion that neither during our earlier nor our late epidemics, has anything been achieved, calculated to justify a claim on our part to superiority of success."

This mortality Dr. La Roche is by no means disposed to refer to the unskillfulness of the physicians who encountered the fever at its various returns; he ascribes it to the deadly malignity of the poison which gave rise to the disease. As in cholera, and in all the fearful epidemics which have ravaged the earth, there are many cases of yellow fever "in which the patient may be properly said to begin to die from the very outset of his attack." During some of the epidemics these are the exceptional cases, but again, at its return, such cases predominate. Some physicians encountering yellow fever in its milder form have met with great success in its treatment, losing only one or two patients in a hundred; but the statistics of the disease show that wherever it has been epidemic the average mortality has been nearly the same, in tropical and in temperate climates, on the old continent and in the new.

Dr. La Roche introduces the chapter on the pathology of yel-

low fever with the "painful avowal," that in regard to that important point, notwithstanding all the labor that has been bestowed upon it, little progress has been made by the profession. The following quotation expresses his theory of its pathology:—

"The cause of this complaint, however it may have originated, is a special poison, which, having penetrated the system and entered the blood vessels in a manner well known, is carried everywhere through the instrumentality of the blood. It produces in that fluid changes, to which attention was called in a former chapter, and others of a more intimate kind, which escape the cognizance of our senses; and by means of the polluted blood, occasions important morbid changes in some of the abdominal organs. It produces, besides, a morbid impression on the nervous centers; and these, as well as the former, in their turn, induce, by virtue of the numerous sympathies which bind together the various components of the system, diseased modifications in various organs and tissues, and thereby give rise to phenomena of a more or less peculiar kind, or essential to the manifestation of the fever, and varying somewhat in number and violence in different individuals and under different circumstances. The morbid actions thus produced may be combined with the opposite conditions of the vital forces, and may or may not be accompanied with inflammation of the parts primarily or secondarily affected; these and the other differences alluded to depending on age, habits of body, and numerous other circumstances connected with the individual; on the degree of concentration and violence of the efficient cause; on the peculiar character of the epidemic constitution of the atmosphere; on the nature of the localities, and numerous other modifying agencies. Hence, in some cases—under some circumstances, in the majority, if not in all—the morbific action of the poison is such as to destroy at once the powers of life; or, in less rapidly fatal instances, to greatly diminish them in all the parts to which it penetrates, and by that means, as well as by the diminution of fibrin or other changes occasioned in the blood, to impede or annul the force of reaction inherent in the system—impairing or destroying the vitality of the tissues and organs, checking the secretions, modifying and vitiating the power of nutrition, lowering the tonic force and vital energy of the blood-vessels, promoting the formation of capillary and venous congestions, facilitating the escape of blood from or in the substance of the tissues, etc."

"That the disease is a general one we may infer from a circumstance to which attention has sometimes been called by pathologists. Jaundice, as Mr. Maher remarks, constitutes a phenomenon of too prominent a kind to allow it to have been forgotten in the description of the disease. So far from this, it has

been amply dwelt upon everywhere and by every writer, and has even given a name to the disease under consideration. Yet this symptom often fails to present itself. The same may be said of the black vomit, so that the yellow fever may really exist without being characterized by either of those symptoms. This proves to my mind, as Mr. Maher states, that the disease to which these two names have been given is not a local affection as these nomenclatures would lead us to infer. If the morbid changes were confined to the stomach and to the liver, the effects produced should always be the same, and the black vomit, as well as the jaundice, should never be absent. If, on the contrary, the lesion which constitutes the yellow fever is generalized and distributed at the same time to one or more apparatuses, we may readily understand that some of its phenomena of outward expression may not be fully developed without its being possible on that account to doubt the identity of the disease.* That the yellow fever does, like other great epidemics, give rise in the course of its progress to morbid changes in particular organs, no man of sense and common observation will deny; such effects are to be expected from all poisons which penetrate into the blood, or act in any way on the system. Sometimes in this disease there is gastritis; the liver is generally changed in a remarkable degree; the kidneys are found altered in color and texture; the lungs show dark patches; the brain is congested and bloody tumors form; the secretions are checked; the texture of the skin is so changed that I have seen the cuticle, by attempting to cleanse the face with a towel wiped off and the skin left as raw as a blistered surface, and this, too, twelve hours before death. Who would say that smallpox and plague were localized because they affected the skin or glands, and so with the gastritis of yellow fever; nor is there any locality which can be assigned to inflammation which will account for the tendency to rapid collapse, the state of the blood, the depressing effects often seen from depletion, the early demand for stimulants."†

The second volume of this compendious treatise opens with an inquiry into the *cause* of yellow fever, which is pursued under the several heads of causes depending on the individual, hygienic causes, contagion, and infection. Under the first is considered *acclimatization*, the protective agency of which against the complaint is universally recognized. As to the time required to obtain the protection different opinions have prevailed, but attacks on citizens who have been for a number of years resident in places subject to yellow fever are, as Dr. La Roche expresses

* N. O. Jour., x. 467. † Nott, Am. Jour., N. S., ix. 288.

it, "exceptions to a rule." The immunity, he believes, "is usually acquired in ten years—often in five—not unfrequently sooner, and is much more perfect when the individual has resided in the place during the prevalence of an epidemic, especially when the latter has been of a severe and malignant character, than when he has done so during a succession of healthy seasons."

Whether persons are likely to suffer a second time from yellow fever is still a disputed question. The general belief is that one attack shields the individual from all further danger; but there are physicians who contend that yellow fever is in no way different, in respect to its protective power, from the bilious remittent fever, which is well known not to exhaust the susceptibility of the system to the morbid impression of the efficient cause. The fact is, we suppose, that neither opinion is strictly correct, but that while a certain immunity is gained by one attack, subsequent attacks are of occasional occurrence, in other words, that the preservation, though the rule, is not universal and absolute.

In regard to age, temperament, sex, and race, as modifying causes of yellow fever, our author has collected many instructive facts. Persons of the sanguineous temperament, in vigorous health, seem to be more subject to the disease than individuals of a feeble constitution. Women are less obnoxious to the poison than men, and when they are seized by the disease it is in a milder form. The aged and the young are not as great sufferers as persons in middle life, which, as in the case of females, is probably due to their being less exposed to the infection. Negroes, especially those born and reared in countries where yellow fever is endemic, enjoy a comparative exemption from the malady, and, as has been remarked of the female sex, if seized with it at all, it is generally in a less malignant form. But those people newly arrived from Africa have at times suffered severely from the fever, and their acclimatization, like that of the whites, may be lost by long residence in cold climates.

Passing over all that relates to the other causes concerned in the generation of yellow fever, about which our author has written with his usual fullness and clearness, we come to consider what he terms "the efficient and immediate cause." In reference to this cause we need hardly say, the greatest diversity of opinion

prevails. Some, nay very many professional observers, and the larger portion of the public, regard the disease as the product of contagion imported from abroad. By others the cause is held to be a febrile poison generated on the spot; while others again, though holding to its domestic origin, contend that it is developed by certain conditions of the atmosphere independent of malaria. The arguments in favor of each one of these opinions are given by Dr. La Roche at great length, but we shall not attempt to follow him in their presentation.

Much controversy has prevailed in our country, in years past, respecting the authorship of the non-contagion theory. Dr. Potter, Dr. Davidge, and Dr. Caldwell have all contended for that honor. Dr. La Roche proves conclusively that Dr. Deveze was the first physician in America to proclaim the non-contagious character and domestic origin of yellow fever. This he did in 1794, a year before Dr. Potter claimed to have broached the opinion to Dr. Rush, and three years before the publication of Dr. Davidge's first essay on the subject. About the same time Dr. Caldwell, along with Rush, Coxe, Physick, and Dewees, embraced the doctrine of domestic orgin, and a year afterwards expressed the belief that "the disease is not contagious in the West Indies, and rarely, if ever, so in the United States." But the doctrine, it seems, may be traced to remote times. Thus in 1643, Ligion, who had witnessed the epidemic at Barbadoes, expressed the belief that it had a domestic origin, and we are told by Lefort that the opinion of the non-contagion of yellow fever is not only general, but traditional in the West Indies. This is the opinion for which our author strenuously contends. From his long and very elaborate argument we can afford room to make but a single extract:—

"*Yellow Fever Local in its Habitation.*—Unlike contagious diseases generally, and similar to endemic fevers, though in a more marked degree, the yellow fever is local in its habitation. The first, when introduced into a place, extend in all directions, and with more or less rapidity diffuse themselves in any part of such places where the contagion may be carried, even at considerable distances from the original cases, each case which occurs there acting as a new source of contamination, and serving to widen the sphere of the epidemic. Endemic autumnal fevers, especially when assuming the epidemic form, while they retain

their so universally recognized non-contagious character, pervade a wide extent of country—differing, however, from the former in this, that though spreading thus widely, they nevertheless do so within certain bounds and in certain directions only, and sometimes spare, more or less completely, localities in even close proximity to others severely infected.

"Now, if we examine what takes place in reference to the yellow fever, we discover that the sphere of its prevalence is always somewhat and on some occasions very circumscribed; the disease remaining confined within the limits of the localities where it originated, or extending at only a comparatively small distance from these. In Philadelphia the disease has, during its various visitations, exhibited in a most striking manner this inability to diffuse itself afar. In 1699 the fever which commenced at a wharf between Market street and the drawbridge, extended over the infant city, but does not appear to have gone much, if at all, beyond its precincts.* In 1747 it was mostly confined within the limits of the southern parts of the city below the drawbridge, and in the neighborhood of the dock, which was then uncovered.† As we have already seen, the fever in 1762 was mostly circumscribed between Pine street, northerly, and three or four squares southerly, and extended from Front or Water street to Third or Fourth in a westward direction. In the memorable epidemic of 1793 the disease, after commencing in Water street, between Mulberry and Sassafras, extended northwardly up Water to Vine, and the streets running east and west, and several running in a contrary direction; and finally in most parts of the city, which was then of limited extent, as also in the suburb of Southwark, in Kensington, at that time a separate village. Beyond these localities it did not spread.

"The next year its limits were more circumscribed, and were embraced within Market and Walnut in one direction, and Water and a few streets to the westward in the other. In 1797 the infection was chiefly confined to the district of Southwark, and to the village of Kensington. Some cases, it is true, appeared in the city proper; but most of these were easily traced to the above sources. The disease in 1798 spread much more extensively than it had done in preceding sickly periods—even perhaps than in 1793—every part of the city, as well as Southwark and Kensington, becoming, before a long time had elapsed, to a greater or less extent the seat of the calamity. But, as in other seasons, the disease remained circumscribed within the above limits, to which all cases that occurred beyond could be traced. In 1799 the epidemic spread from Penn street on the wharf, to almost every part of the

* See ante, vol. i. p. 53, Additional Facts, by Col. of Phys., p. 5.
† See ante, vol. i. p. 60, Additional Facts, by Col. of Phys., p. 6.

city east of Seventh street, beyond which very few cases occurred; and between Pine and Lombard streets, near the southern boundaries of the city, and the district of Southwark, near the Swedes' Church. In 1802 it extended from the corner of Vine and Front to other parts of the city, particularly in Front and Water streets, near the drawbridge. The next year it prevailed in Chestnut near Water street, in Water and Sassafras, and in the lower part of the city near South; but, with few exceptions, its range did not extend to the westward of Second street, and in many parts not even that far. In 1803 it prevailed in Water street, scarcely reaching Second in a form deserving the name of yellow fever. In Water street it occurred at various points embraced within the space of a mile.* Breaking out, in 1805, in the district of Southwark, between the New Market and the Swedes' Church, the disease extended in various directions. But the principal focus of the infection was circumscribed within the limits of Southwark, and a small section of the southern extremity of the city proper east of Second street. In Southwark the disease extended to the east side of Fourth street. In 1819 it was strictly limited to two points—the north side of Market street wharf, and Front street above Walnut; no other cases occurring in any part of the city. In 1820 the fever, though appearing in several separate localities parallel with the river Delaware, but more or less distant from it—Water street near Sassafras, on the wharf near Walnut, in Water street between Market and Mulberry, in Front between Walnut and Chestnut, in Letitia Court, in Second street near Shippen, and finally in the Northern Liberties—did not reach to the east side of Second street. In 1853 it broke out at the corner of South street and the wharf, and continued during the season to prevail in that neighborhood, occupying an area of two or three squares in a northern and southern direction, and a third of that distance westwardly. The fever also broke out, but prevailed to a very limited extent, in the Northern Liberties, leaving the intermediate space, and all north of Spruce, free and healthy.

"That cases occurred beyond the limits ascribed to the disease, during the several epidemics mentioned, is certainly true; but in the very large majority of these, if not in all, they were in persons who had imbibed the seeds of the infection in the sickly districts.

"Nor is it in Philadelphia alone that the yellow fever is found to be thus circumscribed within a certain area. Turn we to New York, we find that in 1791 the disease was limited to Peck Slip and the neighboring streets—principally Water street—whence it spread over some portions of the then small city.† In 1795 it did not advance beyond the wharves and vicinity.‡ In 1798 New

* Caldwell, Med Repos., vii 149. † Addoms, Dissertat. Inaug., p. 7.
‡ Bayley, pp. 60–90; Seaman, in Webster's Col., p. 5; E. H. Smith, ib. p. 67.

Slip was the locality most affected.* Two years after it was limited to Pearl and Water streets, and the adjoining slips.† In 1803 the first alarm arose about the Coffee House Slip, and in that neighborhood. The fever prevailed about the same time in some other parts of the city, but principally near the margins of the two rivers.‡ In 1805 it was at first limited to the eastern side of the city, in Front, Water, and Pearl streets—principally below Burling Slip. After a short time, however, it broke out near the North River, and prevailed mostly on the low ground situated on the margin of the two streams.§ But the area of the infected district did not exceed two hundred yards from one extremity to the other. The fever of 1819 was confined within narrow limits, the infected district being described by the Board of Health as beginning at the foot of pier No. 8, East River; thence running on the eastern side of the same pier, and the adjoining slip to the corner of Pearl street; thence up Pearl to the west side of Wall street; thence down Wall street to the East River—thus including little more than the old slip and the parts adjacent."‖

After the discussion of contagion, which takes up nearly four hundred pages of his book, Dr. La Roche devotes a chapter to an inquiry into the nature of the yellow fever poison, but without very satisfactory results. The nature of the poison is still shrowded in profound mystery. We wish we could speak otherwise in regard to the treatment of yellow fever. We might be reconciled to our ignorance respecting its cause—whether a miasm, an infection, or a contagion—if, by our long experience, we had acquired satisfactory skill in its treatment; but when, after passing over all these ample pages so full of information on many points, we arrive at the concluding chapters, it is with a melancholy feeling that we review the various conflicting plans which have been tried, applauded, and then given up for others as unsatisfactory and unavailing. Nevertheless, progress has been made in this direction. Both in regard to treatment and prophylaxis we have gained much valuable knowledge, as the attentive reader of this work cannot fail to be convinced. The author, as a faithful his-

* McKnight, Med. Reg., iii. 295; Hardie, Fev. of 1798, p. 28; Rept. on Quarntine Laws, p. 8.

† Seaman, Med. Repos., iv. 250.

‡ Miller (E.), Works; Hardin on Fev. of 1822, p. 13; ib., Doc. relative to the Board of Health, p. 36.

§ Miller, Report in Document relative to Board of Health, p. 46, and Works, p. 89; Rodgers, Letter to Board of Health, in same doc., p. 25.

‖ Watts, pp. 302, 350; Med. Rep., N. S., v. 240.

torian, has given an account of all the numerous methods that have been proposed. One writer quoted speaks thus of mercury in forms of the fever where the mild antiphlogistic plan is ineffectual:—

"'But when,' as he says, 'the force of fever becomes higher and more destructive, it fails so often as to produce the necessity of employing more efficient means. It leaves so much to be done by the powers of nature—for really it professes no more than the removal of obstacles to the curative process, which is performed or attempted by them—that they cannot be confided in exclusively. The powers of nature, in such cases, are too feeble to resist and subdue the disease with their assistance alone. A remedy is demanded which can cut short or mitigate it, by translating excitement from a part which is so vital to one which is less so. *Sthenic* medicines aggravate the evil; *asthenic* medicines cannot reduce it, notwithstanding any reduction of the fluids or excitement; and blisters are incapable of diverting it. Under these circumstances, mercury has been resorted to with the most happy results; and although it does not succeed universally, it has filled up a considerable space in the deficiency of remedies.'"

The reader of the histories of modern yellow fever epidemics need not be told how this practice is condemned by the physicians of the present day. But we shall not pursue this subject.

We conclude by a hearty recommendation of this work to our professional brethren. Dr. La Roche has executed a task of which his friends, his profession, and his country may be proud.

ART. III.—*Clinical Lectures on Surgery.* By M. NELATON. From Notes taken by WALTER F. ATLEE, M. D. Philadelphia: J. Lippincott & Co. 1855. 8vo. pp. 755.

Dr. Atlee is a very industrious translator. Only a year ago he laid his countrymen under obligations by translating his notes, which were very closely and faithfully taken, of M. Bernard's Lectures on the Blood. He has now rendered into English Nélaton's Clinical Lectures on Surgery. The volume contains the publication of notes taken, during a period of three years,

1451-2-3-4, from the remarks the French Surgeon made upon cases admitted into the Clinical Hospital of the Faculty of Medicine, of Paris.

We ourselves have had some experience in this kind of labor, and most cordially say of Dr. Atlee that he is an admirable note taker, and much the best translator of the French who has yet appeared on this side of the Atlantic. And what, we think, is not less to his praise, he has, though a *Philadelphian*, forborne doing any great amount of annotating. What he has done in that way is judicious and—brief.

The course which Dr. A. has adopted in regard to the arrangement of the cases, has been to class under the same head those in which the same pathological lesion existed—a course obviously incomparably superior to its opposite, an example of which is seen in Prof. Bedford's Obstetric Clinique. The copious table of contents and the well-arranged index make it a work of easy reference.

Since M. Nélaton can but be regarded as one of the leading minds of the French School of Surgery, his lectures are entitled to most favorable consideration. They will amply repay an attentive perusal. They are, in our opinion, *model Clinical Lectures*, and we sincerely wish that among their many readers in this country they may fall into the hands of the teachers of both Clinical Medicine and Surgery. The "Good morning, my good woman," style does not appear in M. Nélaton's book. We are spared any elaborate sermons on virtue, morality and the like, and have, instead, a plain, straight forward, well told narrative of cases, with judicious and practical comments thereon.

An idea of the general style of the work, and the manner in which the American editor has discharged his task, may be obtained from the following cases selected from the chapter on Cancerous Affections of the Bones. It is hardly necessary to remark that M. Nélaton has, perhaps, greater celebriety in this particular department of surgical pathology than in any other:—

"*Of the Femur.*—November, 1853. A man, forty years of age, quite emaciated, but not in marasmus; his condition still admitted of a serious operation. He had been sent to the hospital as affected with fungosities of the synovial membrane at the knee.

"Of the antecedents of the patient only one need be mentioned, and that with reserve. He said that his father died at the age of fifty-nine, from an ulcer of the leg, after having suffered a great deal from it. Now, it cannot be affirmed that an ulcer which caused great suffering, was an ulcerated cancer, but it is possible that it was so.

"In the month of December, 1852, he felt the first symptoms of the affection, what he called *engourdissement*, numbness, in the left knee, and feebleness in the left lower extremity. When examined as to the sensation, he said at first there were pains like flashes of lightning shooting through the part, very rare, but afterward more frequent; the pain, when he came to the wards, was a dull, heavy pain. In the month of February following, he noticed a tumor on the internal lateral portion of the femur, above the condyle, as large as the egg of a chicken, and its great diameter in the axis of the limb; it increased in size, and at last gained the anterior, then the external part of the thigh, and at the same time the popliteal space was invaded. Moreover, this tumor was very hard at first; the patient had sought to move it, but it was very firmly fixed. The man was very intelligent, and had observed very well the progress of his disease.

"At the time of his entering the tumefaction was very considerable, above all at the superior part of the knee, or, more properly speaking, the inferior portion of the femur; this tumefaction was quite regularly uniform. On the exterior the skin was marbled, in some places from small ecchymoses, in others from blood-vessels which could be seen through the thinned integument; in the upper part, on the thigh, the veins were enlarged, and at parts corresponding to these veins, the tumor felt as if grooved. As to the consistence, at the internal part, where it had commenced, the softness was remarkable; there, there was fluctuation, what is called *false* fluctuation, a bad term, for the fluctuation was as frank here as if there had been a collection of pus. In other parts of the tumor the softness was not so great. By attention, on leaving the hand applied, uniform pulsation could be felt. In the popliteal space, the *internes* thought they could perceive a *bruit-de-souffle;* M. Nélaton himself could not hear it, probably from the noise in the ward when he made his visit.

"Without going further the diagnosis of this disease could be circumscribed to three affections. 1. White swelling, the kind formed by fungosities of the synovial membrane; 2. A vast hydrarthrosis with thickening of the walls; or 3. A cancerous affection. M. Nélaton has seen errors made with all these three affections, and by intelligent men, well up to the times as regards the science of surgery.

"Fungosities of the synovial membrane, in some cases, present the same appearance that this one did, giving to the touch a

feeling of softness and of fluctuation. Again, another circumstance is this, that some white swellings of this kind present pulsations, and the surgeon must take care not to be deceived by them. There were many other reasons for refusing to admit this disease to be a white swelling, but M. Nélaton, in mentioning them, limited himself to the chief, the origin: the tumor has commenced at some distance from the joint and finished by covering it; again, at the beginning it was hard: there is nothing like that in tumors formed by fungosities; again, in some places it was hard, in others soft; when the synovial is affected, all is equally soft. Without hesitation, then, the supposition of its being this affection would be rejected.

"Between the other two affections the diagnosis is more easy, yet as the error has been committed of confounding them, attention should be called to the possibility of it. A man had been in the wards but a short time before, who had entered for cancer, and the affection had been proved to be only a vast hydrarthrosis. In such cases all the bonds of union at the articulation are loosened, and the limb turns in every direction; again, they are of very long duration, and it is only when very old that the mistake could be made. In this present instance the tumor had only commenced the preceding February.

"This disease was, therefore, a cancer. Where originally developed was a superfluous affair, so far as diagnosis and treatment were concerned, but M. Nélaton thought that very probably it was a cancer developed in the bone.

"Some cancers begin in bone, and replace, so to speak, the osseous tissue; you find a loss of compact tissue filled up by cancer. In the neighborhood of this loss of substance the bone does not appear to have undergone any alteration. This variety, it may be added, is often seen in the condyles.

"In a second variety, or a second form of cancerous affection of the bones, the bone is pushed before the cancerous mass as it is developed, in place of being destroyed, as in the first form, just spoken of. It is difficult to account for this, but observation seems to show that in the first form the cancerous tissue is in immediate contact with the osseous, while in this there is a fibrous envelop around it. The bone, as it gradually yields, becomes thinner and thinner, and forms at last a very thin, very friable shell around the cancerous mass (spina ventosa of the books).

"A third form resembles this second very much. When the tumor is cut open, a large number of cells are seen, very irregular in their forms and dimensions, and filled by cancerous tissue; it looks as if there were a considerable rarefaction of the bony tissue, in the cells of which the cancerous matter was deposited (osteosarcoma).

"A fourth form is very rare; from a bone a great number of bony needles arise, all, generally, in the same direction for a certain distance, and then a mass of them in another direction; all are plunged in a cancerous mass enveloping the whole. These excessively fine bony prolongations, which might be compared to hairs implanted upon the surface of the bone, are sometimes one or two inches long. Of this variety M. Nélaton showed a specimen in the lower jaw-bone, amputated by M. Maisonneuve.

"In this patient the disease was believed to be this fourth form, developed on the surface of the bone. It very often happens, as was supposed to be true here, that the articulation is not invaded.

"It is important, in speaking of the development of these tumors, to remark that they never invade the cartilaginous tissue; when they have had their origin near the articular extremity of a bone, the diarthrodial cartilage is found intact in spite of the complete degeneration of the epiphysis supporting it. When a joint is invaded, it is by the extension of the disease to a point where the bony tissue is only covered by the periosteum and the synovial membrane.

"What was to be done in this case? In a few months, if left alone, the patient would die from exhaustion. The inguinal ganglions were intact; if even they had been somewhat larger than usual, that would not have been a reason for supposing them to have been invaded by the disease, for leeches and irritating external applications had been made to the knee, before the patient came to the hospital, under the idea that the affection was one of fungosities of the synovial membrane. It was necessary to operate to remove the disease, and the only operation to be performed for this purpose was the amputation of the limb. In regard to the method of doing this, a very oblique incision would be made, in order to take the whole flap for covering the stump from the anterior part of the thigh. This is done in order to avoid a posterior cul-de sac, where the liquids afterward effused can sojourn.

"The incision which M. Nélaton made around the limb was very oblique, as he had said; the anterior portion of the flap, which was of sufficient size to cover the whole bleeding surface, was fastened to the inferior portion by means of some sutures and adhesive strips.

"In order to examine the parts amputated, an antero-posterior section was made, dividing the soft parts and the bone. The tumor was found to have developed itself upon the exterior of the femur; it was the form of cancer of the bone described above, as composed of osseous needles, the whole surrounded by cancerous production. The respect for the diarthrodial cartilages was also noticed; the articulation was free from disease. M. Nélaton

added a few words to what he had already said as to the march of these tumors; he has seen a great number of them, and has observed that there is a much smaller chance of a return of the disease than when cancer attacks other portions of the body; the affection demands amputation, but very often the result is durable.

"As to the patient, at first he got along very well. The day after the operation, something was given him to eat, for he was doing very well, and he asked for it. On Monday (the operation was performed on Friday) he complained a little, but he had no chilliness, and it was supposed to be owing to his position in the bed. The stump, at the same time, was somewhat swollen and rather smooth and shining, but this was not objected to by M. Nélaton; he said that he had noticed that those patients who experience some apparently unfavorable symptoms on the part of the stump itself, are those who are least affected with the symptoms he dreads so much, of purulent affection. On Monday night the patient had a chill; on Tuesday he had no repetition of it; but it was a symptom of purulent affection that caused much anxiety. The wound was washed with tincture of iodine, and good diet and strong wine were ordered for the patient.

"On Saturday the man died, after presenting all the symptoms of purulent infection; there were signs of metastatic abscesses in the lungs, and he had complained, above all, of a stitch in the side near the heart; he had spit some blood. At the examination of the body, an abscess was found in the lungs near where the man had complained of pain; on opening it pus was found, and around it there was a peripheric pneumonia. Scattered through the lungs were found small cretaceous masses, and what is remarkable, they were enveloped in pus.

"M. Nélaton was very much affected by the fatal result in this case; things had come to such a point, he said, that really he was forced to ask himself the question, whether, morally, he ought to undertake such operations in his hospital; and it was not the only one in Paris where the mortality was so frightful; radical reforms were needed in all. Of all the cases operated upon, by amputation, in the preceding twelve months, only two had been saved.

"Upon the anatomical pieces, in this case, an instructive experiment was made. Dupuytren, and his school, teach that a ligature should not be applied to an artery in a suppurating wound. M. Nélaton took a fine thread, and the vessel could not be cut by it, though it had remained bathed in suppuration for more than a week. *Arteries in suppurating wounds may be tied;* they can support a ligature as well as any others; the two coats are divided by the thread, and the third resists, as it always does.

"December, 1853. A man, fifty years of age, quite robust, from

the country, came to the hospital, for an affection of the knee. Of the antecedents, in this case, M. Nélaton did not speak; he thinks it best, he said, not to encumber his remarks too much with what is, most generally, useless.

"The patient said that three years before a small tumor had formed at the internal face of the knee. When first noticed it was as small as the end of the finger; and when asked to point out the spot where it was situated (for it is of importance to know this), he indicated, as well as could be judged in the existing condition of things, the lower part of the internal condyle of the femur. At first this tumor increased slowly in size; in the course of the first twelve months reaching the volume of a hen's egg; since then, its growth had been more rapid; as a reason for which, he assigned several falls and contusions, but these M. Nélaton thought no importance was to be attached.

"At the time he came to the hospital, at the internal portion of the right knee was a tumor six inches in length, and nearly five in breadth, from one side to the other. It turned about half around the knee, extending from the internal border of the patella around to the biceps muscle. Upwards it extended four inches above the line between the femur and the tibia, and it went down over the tibia as far as where the sartorius is inserted. In many places the fingers could be passed under this tumor. The very greatest pains were taken to see if it only covered the tibia, or came out of it; for some time M. Nèlaton believed that it arose from that bone, but afterwards he concluded not. The first question to be settled, of course, was whether the movements of the tibia were communicated to the mass. Although the tumor moved with the bone, yet it seemed as if there did not exist a perfect correlation in the movements; when the leg is flexed on the thigh, a slight rotatory movement can be impressed upon the leg, and it seemed, here, as if this could be executed without disturbing the tumor. Again, the prolongation of the tumor in the popliteal space was contrary to such a supposition, for such a prolongation would not come from a tumor arising from the anterior part of the tibia. The tumor, therefore, had its origin from the internal face of the condyle of the femur.

"The integrity of the articulation, seen in this case, is what is usually observed.

"The mass was lobulated; in some places it felt as if there were many tumors agglutinated together. It did not have the same consistence everywhere; in some parts, above all at the circumference, it was firm; in the center it was softer, and then at the internal face of the condyle, where the patient had first observed it, it was evidently fluctuating. There are some *tissues* which are fluctuating; a testicle in its physiological state is fluctuating; and there are pathological tissues which are fluctuating.

"At the commencement the patient only had a feeling of numbness about the tumor; afterwards he had lancinating pains; of late the pains had increased, and, at the same time, the skin had become rosy and smooth.

"This tumor, M. Nélaton said, was an encephaloid tumor; one in which micrographs would very probably not find what they esteem to be cancerous elements, but those found in fibro-plastic tumors.

"If operated upon the chances were very great that it would not return; it was not certain, but very probable. If not operated upon it would become larger and larger, the skin would be perforated; ten days after that the ulceration would be frightful, with hemorrhage and sanious exudation, and the patient would rapidly sink. In six or eight months, if abandoned to himself, M. Nélaton thought, the man would die.

"The only operation to be performed in the case was the amputation of the thigh; the extirpation of the affection was not to be thought of, for the roots would be left in the bones; it was impossible to remove it without removing the bone itself. But amputations succeed horribly in this hospital, M. Nélaton said, and he believed they did no better in the others in Paris, only the surgeons would not confess it. In addition, at that time, the cholera was attacking the patients. The best advice he thougbt he could give to the man was, to go back to his native place, and to persuade the physician of the village to remove the limb for him.

"The preceding case of cancer of the bone was supposed to be one of the third form of that affection, in which there seems to be a considerable rarefaction of the osseous tissue, in the cells of which the cancerous matter is deposited. At his next lecture, M. Nélaton brought a fresh pathological specimen, showing, he said, another form, in which the cancerous matter penetrates into the bone, and causes a loss of osseous substance.

"This specimen was an amputated thigh from a patient operated upon in his private practice. The patient was a young man twenty-two years of age, who had been treated for a syphilitic affection of the upper part of the tibia, till M. Ricord and M. Nélaton were called in, in consultation, when they recognized the affection to be a variety of cancer of the bone. The disease had then lasted only three months, and already the bone could be bent in all directions, as if formed of a soft, elastic substance. The pains were so intense that the patient had not slept for thirty days. The tibia only was affected, but in the most superior portion.

"The amputation of the thigh had been practiced as low down as possible, as it is better for an artificial limb, and also for the chance of cure. The incision in the soft parts could be seen to have been made immediately above the patella.

"Proceeding to the examination of this specimen, when the knee-joint, whose movements had been unaffected, was opened, the articulation was found intact; no disease had penetrated into it. If some had been found in the articulation, it would have been propagated by parts of the tibia not provided with cartilage, which prevents the extension of the cancerous affection. When a vertical section of the tibia was made with a saw, the affection was found not to be cancerous, but one of *erectile tumor of the bone.* In the case of this young man, there had never been any pulsations, nor any souffle, and this had made M. Nélaton believe that the tumor could not possibly be vascular, but must necessarily be encephaloid. The diseased portion of the tibia, when the bone was thus sawn vertically in half, appeared to be about five inches long, in the direction of the long diameter of the bone, and three and a half wide. The affection, M. Nélaton said, was between erectile tumor and what is called multilocular cyst of bones, in which sometimes the contained fluid is sero-sanguineous. In the work of Scarpa, an exact representation of what was here seen can be found."

In the mechanical execution of the work Messrs. J. B. Lippincott & Co. have done themselves great credit. The type and paper are excellent. D. W. Y.

Art. IV.—*The Pathology and Treatment of Leucorrhœa.* By W. Tyler Smith, M. D., Member of the Royal College of Physicians; Physician Accoucheur to St. Mary's Hospital; Lecturer on Midwifery and the Diseases of Women in St. Mary's Hospital Medical School; Vice-President of the Medical Society of London; Honary Fellow of the Obstetrical Society of Dublin, etc., etc. Philadelphia: Blanchard & Lea. 1855. pp. 199. 8vo.

Every practitioner of medicine has been made keenly to feel how much the subject of uterine and vaginal disorders is in need of ampler investigation. Industriously as they have been studied, especially within a few years, there are still great difficulties attend-

ing their treatment, and it is therefore that we hail with pleasure this new contribution to one branch of the subject. Dr. Smith has studied the discharges from the vagina microscopically, and thinks he has derived from their appearance important aid in the diagnosis of uterine and vaginal disorders. He precedes his account of these discharges with a description of the vagina, os, and cervix uteri as they are seen under the microscope, which is illustrated with numerous and highly instructive wood cuts. The secretions of these parts in the healthy state are then described, after which he takes up the different forms of leucorrhœa. He remarks:—

"All pathology has its basis in physiology. In the various departments of medicine, the only way of reconciling differences of opinion is by investigation. The demonstration of two very differently organized surfaces in the vagina, and in the canal of the cervix uteri, with the existence of two very distinct forms of secretion, naturally lead us to the consideration of two principal forms of leucorrhœa. But at this point it may be well to revert for a moment to the special differences which exist between the vagina and the cervical canal. The lining membrane of the vagina approaches in organization to the skin; it is covered by a thick layer of scaly epithelium; it contains in the greater part of its surface few if any mucous follicles or glands; its secretion is acid, consisting entirely of plasma and epithelium, and the chief object of the secretion is the lubrication of the surface upon which it is formed. On the other hand, the lining of the canal of the cervix is a true mucous membrane; it is covered in great part by cylinder epithelium; it abounds with immense numbers of mucous follicles having a special arrangement; it pours forth a true mucous secretion, alkaline in character, and consisting of mucus-corpuscles and plasma, with little or no epithelium; and this secretion has special uses to perform in the unimpregnated state, and in pregnancy and parturition. Leucorrhœa admits of a similar division. The first and the most frequent and important is the Mucous variety, consisting chiefly of mucus-corpuscles and plasma, and secreted chiefly by the follicular canal of the cervix. The second is the Epithelial variety, in which the discharge is Vaginal, or is secreted by the vaginal portion of the os and cervix, and consists for the most part of scaly epithelium and *débris*. These two varieties may of course exist in various degrees of combination; sometimes the one and sometimes the other preponderates, or is the original affection; but the chief importance must be given to cervical or mucous leucorrhœa, as being the most obstinate and common. I pass by at present altogether those dis-

charges limited to the ostium vaginæ, as these, when they occur, which is seldom, are easy of diagnosis and cure. I have already referred to the antithesis of the function which exists between the cervical canal, and the cavity of the fundus uteri; the one secreting mucus periodically, the other producing the catamenial secretion. It is impossible not to be struck with certain points of comparison and contrast between some of the disorders of the fundus uteri and cervical leucorrhœa. In certain cases of menorrhagia, for instance, the periodical sanguineous discharge is converted into a constant colored discharge; while in severe cases of leucorrhœa the periodical white mucous discharge is rendered permanent. I shall have hereafter to show that the relations between leucorrhœa and the catamenial function in health and disease are very interesting and important."

After describing these varieties of leucorrhœa, the author proceeds to point out the sequelæ of the affection, which are inflammation, abrasion, ulceration, induration, and hypertrophy of the os and cervix uteri, and abrasion and superficial ulceration of the vagina. He then indicates certain relations found to exist, occasionally, between secondary syphilis and leucorrhœa, and in subsequent chapters the relations of leucorrhœa to disorders of the function of menstruation, and to sterility and abortion. The concluding chapters treat of the constitutional and local causes of leucorrhœa, and its treatment. Among the causes he enumerates plethora, debility, prolonged lactation, strumous habit, skin diseases, climate, rectal irritation, vesical and urethral irritation, vaginal and uterine irritation, gestation and abortion. We pass to what he says of the treatment:—

"In the treatment of leucorrhœa, as of all other uterine disorders, it must never be forgotten that the principle of growth, and the tendency to perverted nutrition, is more active in the female reproductive organs than in any other parts of the economy. This exuberance is seen not only in the profuse growth of tumors of various kinds, but in the active discharges, both menorrhagic and leucorrhœal, to which the uterus is liable, and in the changes by which they are accompanied. The only way in which the nutrition and secretions of these parts can be restrained within a proper limit, when there is a tendency to excess or want of balance, is by keeping the whole of the organs and, as far as possible, all their various functions, in a state of healthful but not excessive activity.

"In such cases the particular constitutional state found in combination with leucorrhœa should be met, as far as possible, by

medicines, diet, and regimen, especial attention being in all cases shown to the disorders of menstruation. It will be found that very few cases are met with in which menstrual disorder of some kind is not a part and complication. Into the particular treatment of such cases I need not enter; it will probably be more useful if I make some remarks upon the various remedies in use, and the methods of treatment, both of constitutional and local character. In leucorrhœa having a specific origin, as in the cases referred to in chapter vi., of course a special treatment becomes necessary. No means avail in curing the lucorrhœal discharge, and the other uterine symptoms, without the removal of the constitutional taint of syphilis.

"*Preparations of Iron.*—No single remedy is of equal importance with steel, in the treatment of leucorrhœa attended or caused by debility. In patients of strumous habit, the iodide of iron is of great value. In cases attended by gastric irritability, the ammonio-citrate, or the citrate of iron; and in cases attended by relaxation of the system, the sesquichloride of iron, and the sulphate of iron, are very valuable. The various chalybeates of this country and the Continent are often of great use, particularly in cases where only small doses of iron can be borne by the stomach. Some persons affected with lucorrhœa require a suitable preparation of steel almost habitually, as part of their diet, rather than as medicine. Even in leucorrhœa occurring in plethoric habits, it is often necessary to give iron in combination with aperients and alteratives. The chief objection to the use of iron in feeble habits, occurs in menorrhagic cases, in which only astringent preparations of iron are admissible. Sometimes the sesquichloride, or the iron alum, is useful during the actual flow of the menses. In other cases these preparations increase the loss, if given during the periods, but are of great use during the intervals. In cases of leucorrhœa combined with amenorrhœa in feeble habits, and in periodical leucorrhœa, the preparations of steel are the only medicines which can be relied upon, the re-establishment of the catemenia being the surest method of removing the leucorrhœa.

"*Iron Alums.*—A combination of alum and iron has long been used in the treatment of leucorrhœal disorders. The efficacy of the Sand-rock chalybeate water, in the Isle of Wight, in these affections, is tolerably well known. This spring is powerfully impregnated with sulphate of iron and sulphate of alumina, upwards of forty-one grains of the former and thirty-one of the latter being contained in every pint. At the commencement of the present century, this water was extensively used by Dr. Saunders and by several physicians engaged in the treatment of uterine disease, having been introduced to the notice of the profession by Mr. Waterworth, of Newport, whose excellent accounts of the

spring and its medicinal properties have been lately republished by his son. From the analysis of Dr. Marcet, it would appear that the sulphate of iron and alumina are not in chemical combination, but are simply dissolved together in the water. The springs of Hartfell, in Scotland, and Horley-green, in Yorkshire, and several springs on the Continent, have a similar composition, but are less powerful than the Sand-rock water. There can be no doubt of the curative effects of this water, and it is still resorted to in various diseases of relaxation and debility, and is exported in considerable quantities to India and other warm climates. My friend, Mr. J. R. Martin, has always used it extensively in the disorders of females on their return from tropical climates, particularly in cases of leucorrhœa and menorrhagia.

"In imitation of this mineral water I was in the habit of prescribing for my hospital patients a mixture of sulphate of iron and common alum in water, in the proportion of from two to five grs. of each, dissolved in water, two or three times a day, with very good effect, when I learned from Mr. Lindsey Blyth, the late dispenser at St. Mary's Hospital, who is a most excellent pharmaceutical chemist, that Mr. Davenport had placed some beautiful crystals of a preparation of iron alum in the Great Exhibition in the year 1851. This preparation was obtained in a casual manner by Mr. Davenport from a solution of persulphate of iron. At my request Mr. Blyth procured some of this salt, and in 1852 I began to administer it in cases of leucorrhœa, prior to which I believe it had never been used in medicine. I found it remarkably efficacious, and have constantly prescribed it since that time. I certainly do not know of any other internal remedy which at all equals it in leucorrhœa. Since I began to use it, it has been employed by my colleagues, and by other physicians, but sometimes other compounds have been used under the name of iron alum. Dr. Bence Jones, for instance, in a lecture in the Medical Times, (Nov. 12, 1853), stated that he had used iron alum with good effect, having obtained it from Mr. Morson, of Southampton Row. From an inquiry of Mr. Morson, I found the preparation he had supplied was merely a mixture of sulphate of iron and sulphate of alumina and potash, and not the true iron alum."

After mentioning tonics, and purgatives, and injections, and stating the circumstances under which they are to be employed, he proceeds to speak of caustic applications, respecting which he says:—

"In this place I wish to say a few words on the use of violent caustics in the treatment of uterine disease, and particularly of the so-called ulceration and hypertrophy of the os and cervix uteri. One point appears to me to have been almost lost sight of in the use of these applications. The uterus has to pass physiologically

through great changes of growth and development in the course of pregnancy, parturition, and the return of the organ to the unimpregnated state. Of all the changes which occur to the uterus during the evolution and devolution of the organ before and after delivery, those which occur in the os and cervix uteri are perhaps the most remarkable. In the great majority of patients who present themselves for treatment, it must not be forgotten, that the uterus will have at some future time to pass through these changes. This circumstance alone appears to me to furnish a very strong *à priori* argument against the use of caustics sufficiently strong to cause disorganization of the os and cervix uteri. My own opinion is that the potassa fusa, the potassa cum calce, the acid nitrate of mercury, the chloride of zinc, and the actual cautery, are on this account rarely, if ever, admissible in the treatment of non-malignant disease of the uterus. It has been said that a hypertrophied cervix can be melted down by the use of these destructive agents; but this simply means that portions of the os and cervix uteri may, like other soft tissues, be destroyed by caustic; for it cannot be contended that when violent escharotics are applied to the uterus, the morbid elements are alone affected, the proper structure of the organ remaining intact. The evils of such applications are, as it appears to me, some of them immediate; others are remote. It is the fact that in the use of these violent caustics the death of the patient has been caused by perforation of the vagina behind the posterior lip of the uterus, and the occurrence of fatal peritonitis. Pelvic inflammation, ending in abscess, is another unfortunate result of this practice. I have also known death to occur from cutting off portions of a hypertrophied uterine lip with the knife. No doubt some practitioners apply the more heroic caustics with such care as to avoid any immediate risk; but I doubt if it be possible, with the utmost caution, to prevent ultimate mischief. In Case X., p. 75, I have related the instance of a lady treated by a very skillful practitioner, in whom the melting down of the os and cervix uteri was followed by extensive giving way of the cicatrices, upon the occurrence of pregnancy. I have seen other cases of a similar kind. I have also met with cases in which the firmest adhesions have formed between the os uteri and the vagina, after deep cauterizations. Three years ago a patient came to me who had apparently suffered from leucorrhœa and hypertrophy of the cervix uteri for many years, and who at length, under the care of a practitioner of large experience in a distant colony, had had a prolonged anterior uterine lip excised, and the cervix uteri treated liberally with potassa fusa and potassa cum calce. This patient was seen separately by Dr. Locock and myself, and it was found that the os uteri had, in cicatrizing, completely adhered to the upper part of the posterior vaginal wall. The case was sent to England as one of carcinoma uteri; but the

appearances which were considered to indicate cancer really arose from hypertrophy, and the irregular cicatrizations consequent upon excessive cauterization. In this case the shape of the os and cervix uteri was entirely lost. The subject of it will probably never become pregnant; she has not done so up to the present time; but if she should conceive, the os uteri will have to be torn from the rectum. The upper part of the vagina is in much the same state as we sometimes find it after instrumental labors, in which sloughing and cicatrization have taken place. In other cases the os uteri has been completely closed by adhesive inflammation, after the use of potassa fusa, rendering it necessary to puncture the os to relieve the uterus of retained menstrual fluid. One patient, suffering severely from long-standing scrofulous disease of the elbow and knee joints, and bearing the most extensive marks of scrofulous ulceration, came to me at St. Mary's Hospital, from the country, in whom the whole of the lower part of the cervix uteri had been removed by the frequent application of caustic potash, though the leucorrhœa had evidently depended on the constitutional disorder. I have at the present time an inpatient, in whom the whole of the lower part of the cervix was formerly destroyed by potassa fusa, but she still suffered from profuse leucorrhœa on her admission.

"Such are some of the evils which follow the use of the more violent escharotics in the treatment of ordinary uterine disease. It may be asked, are there no positive advantages in their use, which outweigh the disadvantages of such accidents? In my opinion there is no good which can be effected by the more powerful caustics, which cannot be accomplished by the nitrate of silver, or by other means. It is true that by the prolonged application of the nitrate of silver, loss of substance may be caused, but this is far less likely to occur with lunar caustic than with the more powerful escharotics. It is also true that some practitioners apply the more violent caustics so lightly that they do not exceed the milder medical action of the solid nitrate of silver, but in such cases it would be quite as well to use the safer remedy where a caustic is required."

We believe this work will prove a valuable addition to our literature on the interesting subject of which it treats, and will supply the practitioner with the means of making a more satisfactory diagnosis in this class of affections. We need hardly add, that the publishers have reproduced it in the best style of their art.

ART. V.—*Principles of Human Physiology, with their chief applications to Psychology, Pathology, Therapeutics, Hygiène, and Forensic Medicine.* By WILLIAM B. CARPENTER, M. D., F. R. S., etc., etc. A new American from the last London edition, with 261 Illustrations. Edited with additions by FRANCIS GURNEY SMITH, M. D., Professor of the Institutes of Medicine in the Medical Department of Pennsylvania College, etc. Philadelphia: Blanchard & Lea. 1855. pp. 902. 8vo.

Dr. Carpenter stands confessedly at the head of English authors on Physiology. No work in our language will compare with his several productions on this subject. He is not only the most original of our writers, but the most comprehensive, and most philosophical. If he is exceeded in extent of original research by German and French physiologists, by none of them is he equalled as a clear, logical exponent of the facts and principles of the science. His "Human Physiology" had grown to be so voluminous that he has wisely decided to transfer from it to his "General Physiology" such parts as belong properly to the latter work.

The "overgrown bulk" of the last edition has therefore disappeared in this, from which is excluded the summary of Animal Chemistry, and of the structure and actions of the Animal Tissues, amounting in all to about 240 pages. On the other hand some valuble additions have been made to the chapters on the Organic Functions, and many portions have been re-written, so that his treatise represents the convictions and opinions of the author as completely as if it were making its appearance for the first time. Dr. Carpenter is not ashamed to avow that he has changed his opinions on several subjects since his work was first written. In the rapid progress of physiological science it would be weakness in an author to pretend that his opinions suffered no change. The whole subject of the science has been changed within the last half of the present century, and writers who would not become obsolete must modify their views in accordance with this revolution. Dr. Carpenter is to be commended

on another account—he is ready to welcome truth from whatever quarter it may come, and to give the credit due to every investigator. He has repeatedly made honorable mention of Americans who have contributed facts to the science or suggested plausible theories in regard to any of its phenomena. The present edition contains a summary of Dr. Dalton's researches on the distinctions between the corpus luteum of simple menstruation and that of pregnancy.

Concerning certain states and actions of the cerebrum Dr. Carpenter has put forth views in the successive editions of his work which were received at first with a large measure of skepticism, but which are now gaining the general assent of physiologists. This organ, the instrument of the mind, it cannot be questioned, is capable of acting without the consciousness of the individual. The brain, through which we think, may be active and yet excite no conscious thought. This process Dr. C. terms "unconscious cerebration." "It would have been scarcely possible," he remarks, "to conceive of any more opposite and convincing proof of that independent automatic activity of the cerebrum and of its involuntary influence in producing muscular contraction, than that which was afforded by the epidemic of 'Table-turning and Table-talking,' which, originating in the United States, began to spread through Europe just at the epoch of the publication of the former edition, in which that doctrine was first distinctly developed." It would be superfluous to recommend a work which has acquired so wide a popularity.

ART. VI.—*The Transactions of the American Medical Association.* Vol. VIII. Philadelphia: 1855. pp. 763. 8vo.

We have received the eighth volume of the Transactions of our great medical congress, which is nearly as large, and presents quite as respectable an appearance, as any of its predecessors. In the short time that has been afforded us for an examination of its varied contents, we have not been able to give it more than a very cursory examination, but the little we have had time to read has satisfied us that, as a book of reference, it is of great and permanent value. Its statistics and reports constitute a mass of scientific knowledge to which the practitioner, teacher, and author must make frequent reference.

The report of Dr. Reyburn on the Diseases of Missouri and Iowa, covers nearly two hundred and forty pages, and embraces a vast amount of useful information. The second report, by Dr. Sanford B. Hunt, on the "Hygrometrical State of the Atmosphere in various Localities, and its influence on Health," is also an elaborate and exceedingly valuable paper; and it is followed by the report of Dr. Frank. H. Hamilton, on "Deformities after Fractures," many of the facts and conclusions of which we have had occasion before to refer to. Buffalo has been a large contributor to the Transactions of the Association. Two of her physicians have won the prizes offered for the best essay—Dr. Dalton, and Dr. Flint—and now we have in this volume two most creditable reports by Professors in the same University. The next report is on the "Diet of the Sick," and when we state that it is from the pen of Dr. Charles Hooker, of New Haven, it will not be worth while to add, that it is one of the best reports in the volume—scholarly, scientific, and practical. A report, by Dr. Wm. H. Byford, of Evansville, on "Scrofula," will be read with interest, as will also the one by Dr. N. S. Davis on the "Means of Preserving Milk, and on the Influence of Pregnancy and Menstrua-

tion on the composition and nutritive qualities of that Fluid." Reports on "Dysentery," by Drs. H. Taylor, and J. H. Beech, and on the "Effects of Alcoholic Liquors in Health and Disease," by our distinguished friend, Dr. Mussey, follow, and of the latter we need hardly say that it is a report worthy of the principles and practice of a veteran in the temperance cause. We trust that its venerable author may live long to write many more reports, and to illustrate the virtues of a system which he has faithfully pursued. The "Prize Essay on Placenta Prævia," is a paper of reference which none who are curious about the subject will be willing to dispense with.

We close this hurried, imperfect notice, with the account of the reception of the Association at "Independence Hall":—

"At twelve o'clock, M., May 2, the members of the American Medical Association, comprising above five hundred gentlemen, passed in procession through the Independence Square, and entered Independence Hall. A number of ladies were already present and the Hall was soon crowded to its utmost extent.

"Dr. Isaac Hays, of Philadelphia, in behalf of the Medical Association, introduced the members in the following address:—

"ADDRESS OF DR. ISAAC HAYS.

"*Mr. Mayor:*—I have the gratification of introducing to your Honor the Members of the American Medical Association—our National Medical Congress. This Association was organized, in our city, eight years ago, and has met annually since in one of the principal cities of the Union. It is composed of delegates from the Medical Societies and Colleges, Hospitals, and other Medical Institutions throughout our country. It was instituted with no selfish views, but to accomplish objects of the greatest importance to the public at large; to improve the healing art, and increase its powers for alleviating human suffering. It strives to attain these ends by securing more complete and thorough courses of instruction to students, and by raising the standard of requirements of those admitted into the ranks of the profession; by investigating the causes of the diseases which prevail in certain localities, and by seeking the way by which these causes may be removed, or their effects counteracted; by collecting reliable histories of the different epidemics, which from time to time spread over our country, and by endeavoring to discover the means of arresting their progress; by offering prizes for the most useful discoveries and improvements in medicine; and by promoting

every measure tending to enlarge the boundaries of our science or increase the efficiency, and augment the usefulness of our art.

"In pursuance of these objects the Association has assembled this year in our city, and we feel deeply grateful to you for your courtesy in inviting us to visit this place, so venerated by every American heart.

"The philanthropy of our profession is not restricted to the cure of disease—it has a larger range; it embraces within its scope whatever tends to the improvement of our mental or moral condition, or even to confer 'the greatest good upon the greatest number.' Hence the profession have never been indifferent to national objects; on the contrary, they flatter themselves that they have not been behind any other class of the community in patriotism, but that they have been always prompt to serve their country, not only in their professional capacity, but also by their council in the Cabinet, and even by taking up arms for defence in the field.

"I *need not* remind your honor that the most illustrious physician of his day, in this country, the late Dr. Rush, was a member of the Congress of '76, and affixed his name to the Declaration of Independence; or that General Joseph Warren, one of the most eminent physicians of Boston, contributed by his eloquence to rouse his townsmen to resist the oppressive acts of the mother country, and shed his life's blood on Bunker Hill in defence of liberty; or that his younger brother, Dr. John Warren, animated by the same spirit, volunteered as a private soldier; nor need I refer you to other examples of a similar character. But I *may* assure you that the spirit which animated our ancestors, if it appear dormant, is not extinct in our bosoms, and that while standing on this spot—sacred to Human Liberty—we experience emotions kindred to those which the inspired Law-giver must have felt when he heard the voice calling to him out of the midst of the burning bush: 'Put off thy shoes from off thy feet, for the place whereon thou standest is holy ground.'"

"REPLY OF MAYOR CONRAD.

"*Mr. Chairman of the Committee of Arrangements:*—I thank you in the name of the community which I have the honor to represent, for your eloquent introduction of our friends to the authorities of the city, and to this the Hall of Independence.

"*Gentlemen of the American Medical Association:*—I am proud of the privilege of extending to you, in the name of the government and of the people of Philadelphia, a most cordial welcome.

"I bid you welcome to our city—a city which, deriving a cherished distinction from the profession which you adorn, is eager, now and ever, to requite it, in her tribute of respect for its professors. I welcome you to our people, whose intercourse, for many a year, with you or your brethren, has inspired a feeling which, reserved as we are sometimes said to be, will, I doubt not, burst into earnest and unambiguous expression before you leave us.

"I welcome you, gentlemen, to this Hall, but not as strangers or the sons of strangers—for it is your own. As the temple and territory of Delphos, in the wildest domestic perturbations of Greece, afforded one sacred area over which the cloud of discord never gathered, one altar whose worship was never invaded, this spot, consecrated to our common American glory, knows no lines of latitude, and belongs, in truth, no more to us, whose peculiar privilege it is to inherit its guardianship, than to our brothers—*to you*. In coming hither, therefore, you *come home*. These precincts have been hallowed, for all time, by the heroic virtues of your and our fathers. This is the fountain from the which the living waters of American liberty were first drawn, and it is therefore most sacred—(woe to the generation in which it ceases to be sacred!)—but, like the well of the Patriarch, all the tribes of Liberty's Israel own here an equal right, and owe here an equal homage.

"In no sense, then, can I greet you as strangers—for yours are names familiar to every American proud of the science of his country; and those who are united, by this association, in a cause so lofty as that eloquently characterized by your Chairman, may not only claim the universal and acknowledged privileges of the Republic of minds, but the rights of a nearer and a dearer charter, the Brotherhood of beneficence—the kindred claims of noble hearts, knit in the highest and holiest of human aspirations. In this spirit, with the most fervent and fraternal sentiments of respect and regard, I greet and welcome you.

"You are right, Mr. Chairman, in claiming, amid the associations which hallow these precincts, a peculiar privilege for your profession—a profession which not only sprinkled, with the earliest sacrificial blood of the Revolution, the highest altar upon which Valor vowed and dedicated our country to freedom—I refer as you have referred, to Dr. Warren and Bunker Hill—but which in every struggle for the enlargement and enlightenment of human destinies, has been eminently distinguished for courage, zeal, and fidelity to the rights of man. You have, therefore, a peculiar right to claim kindred here, and have that claim allowed; and within these walls, which witnessed the zeal of Rush, it would be a treason to virtue to forget, that one of the lights of your profession shed glory upon the solemn debates of this hall, and was

foremost among those that bade yonder bell* (preserved and devoted to the veneration of posterity), with its iron tongue, to PROCLAIM LIBERTY THROUGHOUT ALL THE LAND, TO ALL THE INHABITANTS THEREOF.

"It is the glorious peculiarity of your profession that, while Ambition, in its ordinary and most applauded paths, plays the part of the *destroyer*, and wins glory at the expense of human life and happiness, you and yours, with a more exalted civilization, a nobler heroism, have ever *sought to save*. Next to the highest of all human courage—if, indeed, it be merely *human*—that of the martyrs of religious truth—the courage of the physician, whether on the battle-field or in the lazar-house, the courage of science and humanity, is most sublime, and best entitled to the *clarum et venerabile nomen*. The vulgar courage of the warrior, under the base stimulus of passion, or the low greed of applause, can hardly be compared to the noble intrepidity of the surgeon, who gleans, in the ruthless and red-handed reaper's path, the leavings of the battle; and still less with the hero of the hospital, who encounters the grim antagonist in the horrid silence and gloom of the pestilence. Imagination can hardly embody an instance of human courage and virtue more sublime and unearthly than that of the physician, who, in the midnight of a plague-stricken city, thrids the fetid solitudes of its alleys, and, entering the devoted hovel of the wretched, ministers—while only Pestilence and Misery, Death and God look on—to the perishing. I need not step from this spot to grasp the hand of many a hero who claims no laurel—many a noble philanthropist whose sacred labors, in scenes like these, have been unmarked, save by the Eye that never slumbers, and remembered only by him who alone can reward.

"To such a profession, one venerable from its antiquity, noble from the grandeur of its objects, illustrious from its achievements, and which demands every aid and energy of genius and science, of head and heart, that dignifies the race, it is not strange that, go where it may, a ready homage meets and a ready blessing attends it. In our own city, all that is noble in patriotism, all that is exalted in science, all that is bright and beautiful in the arts which refine society, all that is lovely and cherished and holy in private life, combine to render the profession sacred and dear to us.

"There are few living to whom some one death in the past is

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* *The Liberty Bell.*—This is the bell which was rejoicingly rung, from the steeple of the old State House, when the Declaration of Independence was originally read, in July, 1776, to the thousands assembled in the State House yard, now Independence Square. Upon this bell—cast long before the Revolution, and brought from England in the colony times—are the prophetic words of Scripture quoted: "Proclaim liberty throughout all the land, to all the inhabitants thereof."

not the sole event and solitary memory of the survivor's life—to him a lonely pyramid in the melancholy desert; and to such a mind and memory, *the debt of the death bed*, where science, rendered holy by its office, ministered, though never paid, is never repudiated. I never knew a good man, still less a good woman, who had not such a debt—a debt which bankrupt gratitude cherished with its holiest affections and sanctified with its devoutest memories.

"In these times, when the omnipotence of associated effort is invoked for so much that is of dubious merit, it is a gratifying spectacle to behold the enlightened professors of the most exalted of all arts—men sage and grave, unselfish and unaspiring—forsaking the homes to which they are bound by the affections and the afflictions of thousands, by wealth, and fame, and influence, to wander, wearily, away upon a pilgrimage of hundreds of leagues, in the cause and interests of the human family, its security, health and happiness. For more than ten years, the representatives of your profession have thus gathered in Convention. What other body of our citizens have made a like effort—a like sacrifice? Selected from the most eminent of the profession, the delegates have been men whose years, like their virtues, were many. How difficult must have been, to them, the effort to burst through the bonds of a relying and clinching practice! How great the labor, and how heavy the sacrifice! They have already visited, in this duty, the cities of every section of our wide country. How many have fallen by the way-side? How many martyrs could you not thus number in this cause? How many of the good and great of the profession have, in these benevolent pilgrimages, joined the ranks of the thousands who have sacrificed themselves at the requisitions of duty, as recognized and enforced by your self-imposed laws—joining the dead in the effort to aid the living? The epitaph of the Spartans at Thermopylæ might well commemorate the virtues and the fate of these martyrs. But if the cost has been great, the results have been commensurate.

"Of the professional advantages attained, though I know them to be invaluable, I will not presume to speak; but I may be permitted to state, as health is the most important subject of municipal provision and care, that the *Transactions* of the Association, which I have examined with great interest, comprise much that merits the attention, and will reward the respectful consideration of the municipal governments of the Union.

"It is natural that Philadelphia should feel, as she does feel, a profound interest in the cause of medical education in this country. She cannot, of course, forget that it was here that the first medical college was established in this country; that its merits and success extorted a reluctant transatlantic tribute of admiration: and that, progressing rapidly, but wisely, it achieved and

maintained an equality with the most celebrated institutions of the Old World. As the cause of medical education has expanded, and institutions worthy of the cause and the country have sprung up, each triumph, thus attained, has been regarded here as the successful outbursting of an offshoot from the primary effort; and Philadelphia, while rejoicing in the expansion and elevation of medical education throughout the land, has almost fancied—so earnest is her interest in medical education—that she had a right to indulge a *parental* pride in all that advances that interest.

"These genial feelings have been maintained, in all their early and fervid freshness, by constant intercourse with all sections of our country. The ingenuous and gallant youths that have come hither for medical instruction have, in their unstudied intercourse, exhibted the character of their respective States in a light so generous and exalted as to win our affections, not only for themselves, but for the communities and States which could exult in them as their own. Winter after winter, we have had many hundreds of these noble young spirits among us. And let me remark that, rigorous as I am said to be in the administration of the law, I have yet to know the first occasion to rebuke, much less to punish, a medical student. We have found them as gentle and decorous in their deportment as they are exalted in their aspirations; and had Philadelphia—eminently catholic in her affection for her sister communities—needed a lesson of love and loyalty, these high-hearted missionaries would have taught it. This interchange of sympathies has endured for the third of a century—may it last forever! The youths—youths no longer—who formerly bore those sentiments to the remote sections of our Republic, stand before me now as the reverend sages and ornaments of their profession, meeting here the evidences of a reputation which had preceded them, and has long been cherished by us. And who can tell what have been the results of this kindly interchange of kindly feelings? It has doubtless been felt in every commercial, social, and political relation of life, correcting the prejudices, harmonizing the discords, and subduing the dangers of our common country.

"We realize these facts. We recognize, in the members of an enlightened profession like yours, so many patriots and philanthropists, engaged in the great and general interests of the human race; and, apart from the mere scientific acquisitions of your annual meetings, we perceive in them results auspicious to all that we cherish, all that is kindly, forbearing, and conservative, between man and man, party and party, State and State, section and section; and, so regarding them, we hail and greet you with a welcome as sincere and cordial as the heart can conceive or the tongue can utter."

ART. VII.—*Synopsis of the Course of Lectures on Materia Medica and Pharmacy, delivered in the University of Pennsylvania.* By JOSEPH CARSON, M. D. Second edition; revised. Philadelphia: Blanchard & Lea. 1855. pp. 196. 8vo.

The above work is an outline of the lectures on Materia Medica and Pharmacy, delivered by Dr. Joseph Carson, to the classes assembled in the University of Pennsylvania. It is intended as a guide to the leading facts and principles discussed by Dr. Carson in his course.

It is well known to students that the text books which treat of the same department pursue neither the order nor the method adopted in the lectures to which they listen; and that much loss of time is entailed by reading all that is relevant or irrelevant to the portion of subject under consideration at any given period. The range of these works usually placed in the hands of the student is so extensive that he finds it impossible to do more than glance at them during the college terms. And hence the advantages that must accrue from assistance in the form of the present work. So long as the present brief and crowded system of Medical education obtains—so long as lecture terms consist of six lectures daily during a period of only four months—so long as diplomas are given after two years' study—just so long are works of the class we are now handling requisite to anything like fair understanding and reasonable appropriation of what is communicated by oral instruction.

The reader of this notice will please not be misled by the fact that the Synopsis was prepared for the classes of the University of Pennsylvania. It epitomizes the subject of which it treats in a very thorough and satisfactory manner, and will prove a valuable hand-book to the student in attendance upon any of the Medical Colleges in this country. D. W. Y.

Editorial Department.

MEDICAL SOCIETY OF KENTUCKY.

We wish to remind the physicians of Kentucky that the next annual meeting of the *State Medical Society* will be held in Frankfort, on the first Wednesday in February, and to urge a general attendance of the medical men of the State. Kentucky has an able medical faculty. Among her numerous physicians there are very many men of talents and learning who would be ornaments to the profession any where. But they are isolated, and comparatively unknown. Their fine powers and accomplishments are like a candle hid under a bushel. The meetings of the State Medical Society afford opportunities for discovering their worth of which they ought to avail themselves. We assure them they have lost a great deal in not attending former meetings, and if they are true to their own interests, not to speak of the duty they owe to their profession, they will not neglect those which are to come. These re-unions are exceedingly pleasant, and exert the happiest influence upon the social character of our profession, and in addition to all the rest, they re-kindle those fires of professional ambition and zeal which tend so much to advance and sublimate the profession. We trust that every county and town in the State will be represented at the meeting in Frankfort.

MISCELLANEA.

Another Change.—The two medical journals of Virginia, the Virginia Medical and Surgical Journal and Stethescope, will be united on the first of January next, under the style of the Virginia Medical Journal, with Drs. McCaw, Peebles & Otis as editors.

Western Enterprise.—Renouard's History of Medicine, a volume of eight hundred pages, octavo, translated by Prof. Comegys, of the Miami Medical College, has been recently published in beautiful style by a Cincinnati house. A translation of this same work, prepared with much care, a few years since, by a distinguished physician of New York, was offered to the medical publishers of that city without finding one willing to undertake its issue.

"THE NOBLE ARMY OF MARTYRS."

THE following tribute to the memory of the physicians who died of the recent epidemic at Norfolk and Portsmouth, is eloquent and just. Let the memory of these devoted physicians, "as the memory of all brave men should, live":—

IN MEMORY OF

SYLVESTER,	TRUGIEN,	GOOCH,	CRAYCROFT,
CONSTABLE,	PARKER,	HOWLE,	MEIRSON,
HALSON,	LOVETT,	GELBARDT,	HANDY,
COLE,	WALTERS,	SYLVESTER, JR.,	BLOW,
HIGGINS,	THOMPSON,	JACKSON,	MORSE,
BRIGGS,	FLIESS,	DE BERANE,	RIZER,
UPSHUR,	BOOTH,	OBERMULLER,	SMITH,
TUNSTALL,	HOWE,	DE CAPRY,	MARSHALL,
SELDEN,	BACHE,	HUNTER,	CRAVEN,
BURNS,	DILLARD,	SCHELL,	BERRY.

At the close of a long and bloody battle, it is the custom to present a list of the killed and wounded; that sad record of the lamented dead, who have gone down to the grave midst the smoke of the conflict; that glorious record of the heroic dead, whose gallant deeds are painted on the pages of history, whose names are cherished in all hearts.

We, too, have now to tell of like men with these; of some who have fallen at the post of duty; of others who have died while serving as volunteers in a deadly campaign. With no hope of victory, with no pomp and circumstance of war to animate the heart, our brethren in Norfolk and Portsmouth have calmly, firmly discharged their duty, and have met their fate. The slaughter is now over, and we record a mortality unprecedented in history.

Forty physicians have fallen in the hopeless contest. Exhausted with fatigues and watchings; dispirited by their want of success; pressed down with the weight of responsibility resting on them, they have sunk, easy victims to an enemy whose ravages they faithfully labored to resist. Many of these men were residents of the infected cities, and though all was consternation around them, they flinched not at that trying hour; while others from all parts of our country ardently rushed to the scene of danger, and sacrificed their lives in the vain attempt to check the fearful pestilence.

No pompous funeral accompanied our brethren to their silent graves. No music, sad and mournful, rings upon the ear. They lie quietly now, but they have not died in vain. Faithfully have they fulfilled the sacred duties of their calling, and their memories remain an imperishable legacy to the profession they have ennobled and adorned.— *Va. Med. and Sur. Jour.*

Record of Medical Science.

CASES ILLUSTRATING THE TREATMENT OF BADLY-UNITED FRACTURES OF THE THIGH. By GURDON BUCK, M. D., Surgeon to the New York Hospital. Read April 4, 1855.

Case I.—Jules Cæsar, seaman, native of France, age 19 years, fell from aloft on the 27th of March, 1849, and fractured his left thigh near the middle. On the 3d of May he was received into the New York Hospital, into Ward No. 7 of the 2d Surgical Division. Union had taken place, yet a slight degree of motion was still perceptible at the fracture. The overlapping ends of the fragments bowed outwards, and were surrounded with considerable callous deposit. By careful measurement the limb was found to be two inches and a quarter shorter than its fellow. On the 9th of May, six weeks after the injury, the thigh was refractured in the following manner:

Jarvis' Adjuster was first applied, and the thigh put powerfully upon the stretch, as is done in reducing a luxation of the hip. The thigh being then seized at the knee and below the hip, was forcibly bent over the knee of the operator in every direction, so as to liberate the fractured ends, and disengage them from each other.

The rupturing of the adhesions was audible to all present. The patient had obstinately refused to be etherized; yet he did not complain of severe pain during or after the operation. The limb could now be brought down to its full length with the hands alone; when left to itself, it resumed its original shortened condition. Without delay the limb was bandaged and put up in the straight apparatus, and extension kept up as constantly as the patient could bear. At the end of three weeks firm union had taken place and the difference in length was reduced to less than one inch.

After another three weeks the limb was transferred to the double inclined plane, and passive motion, together with frictions, employed to overcome the rigidity of the knee-joint, produced by the long confinement and inaction of the limb.

On the 17th of August, fourteen weeks after the refracture, when the patient took his discharge, he could walk well with the

aid of a cane, the shortening of the limb being still less than one inch. In treating this case we had not yet the advantage of the improved mode of keeping up constant extension, which has since been brought into use in the hospital.

Case II.—John McKee, laborer, native of Ireland, age 19 years, admitted into the New York Hospital on the 11th of October, 1851, with fracture of the os femoris at its middle, caused by being struck with a fragment of rock from a blast.

An external wound over the seat of fracture, supposed to communicate with it, deterred from the employment of any active measures for keeping up extension.

On the 4th of December, nearly eight weeks after the injury, it was found that partial union only had taken place. The limb was shortened two inches, and considerably bowed outwards at the seat of fracture. The external wound having closed, it was determined to refracture the limb, and subject it to constant extension by a new and improved method, which consisted in applying to either side of the limb, and in contact with the surface, a band of adhesive plaster of double thickness, three inches in breadth, and long enough to extend from the seat of fracture to ten inches below the foot. The lower ends of the bands being overlapped and stuck together, formed a loop, within which a square block of wood was placed. This block served as a point from which traction was to be made. Over the bands a roller was to be applied in the usual way, from the toes upwards. This contrivance permitted constant extension to be kept up, without pain or excoriation, or sloughing of the skin.

Its advantages in the treatment of primary fractures of the thigh had been fully tested in practice at the hospital, and its application to cases like the present, where so much depended on maintaining constant extension of the limb to the utmost degree, it was thought would be peculiarly advantageous.

Instead of Jarvis' Adjuster, the ordinary long splint was used in this case to put the limb upon the stretch.

As in the preceding case the thigh, while on the stretch, was bent in every direction, till all the adhesions were ruptured, and the difference in length reduced to three-fourths of an inch. From the sensation perceived during the operation, it was evident that the uniting material was chiefly callus.

The new method of extension was forthwith resorted to in connection with the straight apparatus.

At the end of eight weeks the apparatus was removed, and the fracture found firmly united, the shortening of the limb being less than an inch.

When discharged from the hospital, on the 27th April, patient walked about on crutches, and was gradually regaining the use of his limb.

Case III.—On the 25th of January, 1853, Richard Williams, a seaman, 21 years of age, was admitted to the hospital, with fracture of the right thigh, near the junction of its upper and middle third, that had happened by falling from aloft 16 days prior to his admission. But little swelling remained about the seat of fracture. The shortening of the limb amounted to two inches and three-quarters.

The limb was put up in the straight apparatus, and constant extension by the new method employed, as in Case No II., with the view of stretching the callus without rupturing it.

After the expiration of three weeks it was found that a difference of two inches in the length of the limb still existed, notwithstanding extension had been kept up to the full degree. Five weeks having now passed since the injury, and so little having been gained by stretching the callus, it was determined to rupture it, as in the preceding cases. This was done on the 14th of February, with the aid of ether, and had the effect of reducing the difference in length to one inch. The previous treatment was at once resumed, and continued for thirty-one days. On removing the apparatus firm union had taken place, with a shortening of scarcely one inch.

Case IV.—John Healy, a seaman, native of England, aged 19 years, admitted on the 17th of February, 1854, into Lodge A. in the New York Hospital, with injuries that had happened eight weeks ago in consequence of a fall from a loft, from a height of about sixty feet. The right thigh had been fractured near the middle, and united with great deformity of the limb. Short splints having been applied to the thigh by the mate of the vessel, and the limb below the knee left unsupported, the leg, with the lower fragment of the femur, had rotated outwards, and union had taken place in this position, so that the foot rested on its outer edge as the patient lay on his back with his limb extended. An exuberant deposit of callus surrounded the fractured ends, and no motion was perceptible at the seat of fracture. The absolute shortening of the limb could not be ascertained, for a reason that will appear in the sequel. Besides the fracture of the thigh, the left hip had also sustained a serious injury. The limb lay powerless, and was rotated outwards. The trochanter major was drawn higher up towards the crest of the ilium than natural, as was evident from a comparison of the two sides. The limb could be rotated with equal facility inwards and outwards, and crepitus could be felt with the hand grasping the trochanter. Severe pain in the joint was produced by these manipulations. By extending the limb it could be lengthened one inch, but, when left to itself, it resumed its original length, which was found, on measurement, to be one-fourth of an inch shorter than the right limb. The existence of a fracture through the neck of the femur, still ununited,

being thus ascertained, it became a matter of the utmost importance to our unfortunate patient to rectify, if possible, the distorted condition of the right limb; for it was found that he had no power when assisted to stand up, to bear any weight on his left leg, and he could only support himself on his right leg by throwing himself far over to the right side. It was therefore determined to refracture the right thigh, and treat it *de novo*.

This was done on the 20th of February, with the aid of Jarvis' Adjuster, the patient being previously etherized.

Immediately after the operation the limb was put up in the straight apparatus, and a moderate degree of extension only kept up. Special care, however, was taken to maintain the limb in its true bearings. The left limb was at the same time placed on the double inclined plane. After six weeks the apparatus was removed from the right limb, and solid union found to have taken place, the position and bearings of the limb being natural.

One week later the left limb was removed from the inclined plane, and, on examination, crepitus could no longer be felt at the hip, nor any elongation produced by extension, nor pain excited by rotation of the limb. The trochanter still appeared more salient and higher up on the pelvis than natural. The right leg was half an inch longer than the left.

At the time of his discharge from the hospital, the 5th of July, the patient, who had steadily improved, was able to walk without crutches, supporting himself erect on both limbs alike.

Case V.—John Land, a Norwegian seaman, aged 29 years, of a robust constitution, was admitted on the 19th of May, 1854, into Lodge C., New York Hospital, with fracture of the lower jaw and left arm, besides a fracture of the left thigh at its middle. He had fallen from aloft at sea, a height of about forty feet. Though five weeks had passed since the accident, no bony union had taken place in either of the fractures. They were still very movable, though an exuberant deposit of callous material surrounded the ends of the fragments, both of the arm and thigh. The shortening of the thigh amounted to four inches, with extensive overlapping of the fragments at the seat of fracture. This deficiency of bony union was, no doubt, to be attributed to a cachectic condition of the patient, induced by the privations and sufferings he had endured since the accident. Restricted by the condition of his jaw to the use of liquid nourishment, and only scantily supplied with such as was suitable, he had suffered much of the time from hunger; his body had become emaciated, and his complexion sallow and anemic.

Our first care was to renovate his impoverished system by an abundant supply of nutritious food, in a liquid form, and also by the administration of tonics. Soon after his admission an extensive abscess developed itself at the middle of the left leg, on its

outer surface, and was followed by sloughing of a considerable portion of the superficial muscles. This complication rendered it impossible to employ any means of reducing the amount of shortening. Eleven weeks more passed before the abscess healed and the limb regained a condition that would admit of any attempt to improve it. In the mean time, with restored health, bony union had taken place in the fractures, and the patient's deformity had become permanent for life, unless surgical art could interpose for his relief. Though sixteen weeks had now transpired since the original injury occurred, it was determined to refracture the femur, and endeavor, by constant extension, to reduce the amount of shortening. On the 6th of August the operation of refracturing was performed, the patient being first subjected to the influence of ether. While powerful extension was kept up by means of Jarvis' Adjuster, the thigh was flexed in every direction, and the union between the ends of the fragments broken up. The shortening was now reduced from four inches to one and a quarter.

The straight apparatus, with long extending bands of adhesive plaster, was applied to the limb, and special care taken to keep up the extension to the utmost degree during the subsequent treatment.

At the expiration of 44 days solid union had taken place, with a shortening of one inch and three-eighths.

The rigidity of the knee and ankle joints, and the thickening and swelling of the cellular tissue, consequent on the preceding inflammation and long-continued inaction of the limb, very much retarded the restoration of its functions. He has, however, been gradually improving, and has the prospect of regaining, in a good degree, his former activity.

Case VI—Is that of a boy, 5 years old, still under treatment at the New York Hospital, by my colleague, Dr. T. M. Halsted, who has kindly permitted me to make use of the case.

He was admitted into Ward No. 2 of the First Surgical Division on the 3d of February, 1855, with a fracture of the left femur, that happened about four months previously, from a fall from off a front stoop. The limb was put up with a simple anterior and posterior splint by a bone-setter. The result at the end of four weeks not being satisfactory the limb was refractured and again put up in the same manner. At the end of another four weeks it had again united with deformity, and was refractured a second time. In the same manner the limb was again refractured for the third time; after which the patient was sent to the hospital. When admitted the limb presented a great degree of deformity. The upper fragment, which consisted of the superior third of the bone, overlapped the lower anteriorily and to the outside, with a very marked bowing outwards, and a shortening

of two inches and three quarters by accurate measurement. The union, though quite firm, permitted a slight degree of motion at the seat of fracture.

The limb was now put up in the straight apparatus, and constant extension applied by means of adhesive bands in the hope of stretching the callus. Counter pads were also adjusted near the seat of fracture to overcome the bowing. This plan was continued for 27 days, till the 2d of March, when it was found that the shortening had only been reduced to 2 inches. It was therefore decided, in consultation, to refracture the bone once more, and for the fourth time. This was done with the aid of ether by manipulation alone, and without stretching the thigh. The limb was again put up as before in the straight apparatus, and, on applying extension, was brought down to within one-quarter of an inch of its natural length.

On the 31st of March, after the treatment had been continued four weeks, the limb was examined and union found solid, with a shortening not exceeding one-fourth of an inch.*

Remarks.—Some of the causes of deformed union after fracture, are illustrated by the above cases.

In the absence of surgical aid at sea, for example, the fracture remaining unreduced, the unresisted contraction of the muscles draws the ends of the fragments of bone past each other, producing a shortening of the limb, which, if allowed to continue, becomes permanent. The same result happens where the fracture is complicated by other injuries, or by coexisting diseased conditions of the limb itself, such as erysipelas, abscess, sloughing, etc., making it impossible for the surgeon to secure for the limb a proper condition, or apply the fixtures indispensable to maintain it in a state of reduction. The intractability of the patient, or a state of mania or delirium may thwart the best-devised plan of treatment, and produce the same result. Removing the splints and apparatus from the fractured limb too soon, and premature attempts to use it, are also sure to produce deformity.

The deformity thus resulting may be the shortening of limb to a greater or less degree, without any deviation from its natural bearings. The minimum amount of shortening to be regarded as a deformity requiring or warranting surgical interference, must depend mainly on the inconvenience experienced by the patient himself. It can hardly be rated at less than one inch and a half, though with the present improved mode of keeping up constant extension by adhesive plaster, the attempt may be made under favorable circumstances to diminish even that amount of shortening.

* This patient, when discharged from the hospital on the 29th of May, was able to walk without crutches, the fractured limb being still only one-fourth of an inch shorter than its fellow.

Besides shortening of the limb there may be bowing outwards or inwards at the seat of fracture. There may be also an outward rotation of the limb on its axis below the fracture. The effect of this is to change entirely the bearings of the limb, which is strikingly illustrated in Case IV.

Accident must have early suggested to surgeons the mode of treating this class of deformities. Patients, in their first attempts to resume the use of a fractured thigh or leg, frequently refracture the newly united bone by accidental falls, and this is generally followed by a speedy reconsolidation of the fracture; sometimes this has proved an advantage by enabling the surgeon to correct a defect in the original cure. This was illustrated in a recent case at the hospital. A young man, 17 years of age, was treated during the summer of 1854 for a compound fracture of the left thigh near the middle. The wound complicating the fracture became the seat of hospital gangrene, and prevented the application of any extension of the limb. The result was a shortening of one and a half inches at the date of his discharge on the 3d of October. On the 25th of the same month, and nearly sixteen weeks after the first fracture, he was admitted again with a refracture caused by an accidental fall. There being now no external wound to interfere with the treatment, constant extension was applied, and speedy reconsolidation effected, with only half an inch shortening.

When the interval since the fracture is not too long, and the ends of the fragments are still movable, extension alone may serve to elongate the limb sufficiently. If, however, after a few days' trial, no material advantage has been gained by stretching the callus, there should be no longer delay in rupturing it. The method of operating employed in the above cases has proved safe, and it is believed it may be resorted to with very little risk of injury to the soft parts. By keeping the limb powerfully on the stretch while flexion is made the ends of the fragments cannot be protruded far towards the surface in any direction. The inflammation and swelling following the operation, if any, are so slight as not to interfere with the immediate application of the apparatus for maintaining extension.

An important practical question in relation to this subject is, what interval of time may elapse within which it is admissible to resort to this mode of treatment? Guided solely by the consideration of the time required by the callus to become consolidated, we should be restricted in the application of our treatment to much narrower limits than clinical experience would impose. There is considerable discrepancy among authorities on this point, their views being influenced by the mode of treatment which they advocate. Some advise extension alone, with the view of stretching the callus, and discard altogether the operation of rupturing.

Dupuytren, who advocated extension without rupture, fixed the sixtieth day as the ordinary limit, though he admitted that, in exceptional cases, it might be considerably exceeded. Æsterlin (cited by Laugier, *Thése sur les cals difformes*, etc., etc., Paris, 1841), an advocate of refracture, places the limits at six months to a year for adults, and at a longer period for children. Professor Velpeau (*Médecine Opératoire*, 2d edition, T. 1, pp. 604, 605), divides deformities consequent on fracture into two classes: 1st. Where there is shortening alone of the limb, with overlapping of the fragments. 2d. Where there is angular deformity.

In the first case he thinks that refracture should not be attempted beyond the third month, for fear of fracturing the bone elsewhere; or, in case of separating the fragments, their cicatrized extremities should fail to reunite after being brought to confront each other by extension.

Our Case No. V. is an example of successful refracture beyond the limits prescribed by Velpeau, and the subsequent rapid reconsolidation of the fragments show that the fears of non-union are not always confirmed in practice.

There is still less ground for fear of non-union, if we consider that, after refracture of a callus of so long standing, it is seldom practicable, and never necessary, to employ extension to such a degree as to confront the ends of the fragments. If the amount of shortening be reduced to one inch, or even one inch and a half, there still remains sufficient overlapping of the newly ruptured surfaces to effect a union, and also to secure to the patient a useful limb, with little or no halting in his gait.

In his second class of callus with angular deformity, Professor Velpeau advises refracture of the callus at any period of its existence, however remote, and relates a case of an adult patient with an oblique fracture of the femur, that had united with a shortening of five inches, who, by an accidental fall, refractured the callus ten months afterwards, and recovered in two months, with only one inch shortening.—*Transactions N. Y. Academy of Med.*

Lecture on Pneumonia. By M. Trousseau.—In No. 32 is a young girl who has suffered from pneumonia for six days. The disease commenced in the ordinary manner, with shivering, vomiting, pain in the side, fever, and characteristic expectoration. On examination a very extensive pneumonia was detected, occupying the apex of the left lung, descending in front and laterally to almost its base, leaving only the lower and posterior part of the organ in a sound state. The pulse was very frequent, and of very considerable force and fullness, when compared with the delicate constitution of the patient. To these symptoms were

added labored respiration, extreme anxiety, and violent præcordial pain. These last symptoms led M. Trousseau to ask himself whether the pericardium had not become the seat of inflammation; for it is by no means rare to find a phlegmasia passing from the lung to the heart, and reciprocally, in consequence of the numerous anatomico-physiological ties that unite the two viscera, the coincident pericarditis being perhaps overlooked, owing to attention being conclusively fixed on the affection of the organ of respiration.

As in this patient, the entire absence of all physical signs proved the non-existence of pericarditis. The præcordial pain must be considered as dpending upon intercostal neuritis, shown by M. Beau to prevail in inflammation of the parietal pleura—a neuritis which, although affecting the trunk of the nerve, produces pain at its periphery, where the nervous filaments terminate. Thus, a phlegmasia, affecting a portion of the pleura near the vertebral column, induces pain at the anterior part of the chest. So, too, in a pleurisy of the base we find the pain in the hypochondrium, and in that of the apex it has its seat, by reason of the intercostal nerves, in the præcordial region. This was the case with the patient, in whom the pneumonia was accompanied by a pleurisy of the apex.

The prognosis was serious for several reasons, such as the seat of the affection, its extent, and the violence of the febrile reaction. Bleeding seemed contra-indicated by the constitutional debility of the patient, and it was deemed prudent to depend upon *kermes mineral*, a preparation of antimony of powerful action, far more manageable than tartar emetic, while it possesses nearly all its physiological and therapeutical attributes, causing (like it) vomiting, and at an early stage of its administration, and, somewhat later, diarrhœa. It is very much preferable to administer antimony in the pilular form. When it has been given for several days in succession in the fluid form, it produces in the throat and œsophagus a diffused, special irritation, followed by pustules, analogous to those brought out on the skin by the use of the ointment. Kermes mineral produces this effect as well as tartar emetic, though less speedily, and in a less degree. Laennec was aware of the existence of these pustules, and regarded them as a sign of antimonial saturation, analogous to mercurial saturation. That this was an error is shown by giving the antimony in the form of pills, when pustulation never occurs. Another advantage they possess is, that even when given in double or triple doses, they will not so easily induce vomiting or diarrhœa as does the fluid. Thus, this patient took, during the first two days, fifteen grains, divided into ten pills, one every hour, without any inconvenience.

Some have attributed the therapeutical action of antimonials to

an intestinal revulsion. Such was the opinion of Broussias, declaring that all Laennec did was to apply a blister to the intestines; and that admirable clinical observer, Chomel, entertained similar views. Laennec, on the other hand, believed that the remedy was absorbed, and accorded to it in the contra-stimulant virtue claimed for it by the school of Rasori. We believe we may simplify the problem by suppressing the vomiting and purging, which furnish, in appearance, some grounds to the partisans of the revulsion theory. Thus, in this patient, with the most complete tolerance of the remedy, the pneumonia remaining locally the same, you find the heat of skin has disappeared, and there is scarcely any frequency of pulse remaining. The antimony has vanquished the reactional phenomena. Absorbed, it has acted upon the nervous system, and through this upon the center of circulation. In proceeding thus we interrupt the chain established, through the intermedium of the nerves, between the circulatory centers and the organ affected, so that this last remains with its lesion isolated in the chest, as you may ascertain. But the fever and the general phenomena that accompanied it have disappeared, and this is an immense result; for, while we must not neglect the local condition, it is far more important to note the indirect action which this condition exerts upon the economy. It was against this action we directed our contra-stimulant, and we have been able to dissipate the excitement, the kind of titillation of the nervous system produced by the local lesion which remains now alone, deprived of the reactions which at first accompanied it. We must, in medicine, bear in mind other things than local conditions and suffering organs, regarding man as a whole, and the manner in which he is impressed by these. It is to the general condition alone that medication is oftenest addressed, and that even by the partisans of localization, who are far less exclusive than they believe, boldly opening a vein in pneumonia without considering whether this practice is in accordance with their theoretical views.

The kermes will in this case be continued for some days and then suspended, or we shall find the very pustulation produced in the stomach and intestines that we sought to avoid in the upper part of the canal. In a patient in one of the wards convalescence has been delayed by an enteritis thus artificially induced. As a general rule, medication is continued too long in internal affections, perhaps because we are not able to form an exact idea of the condition of the parts. We should rather imitate the conduct of the surgeon, who, after having procured a free issue for the pus of a phlegmon, leaves to nature the task of resolving the peripheric engorgement and remaining inflammation. The proper time for staying the hand, is when resolution has freely commenced. Thus, in pneumonia, as soon as the general phenomena have disappeared,

and we hear the local signs of returning normal respiration, we must suspend medicines and have recourse to food.

Rheumatic Pneumonia.—About a month since a young man was admitted with all the signs of pneumonia, and, kermes having been administered, the next day all traces of the pneumonia had disappeared. To what were we to attribute so sudden a retrocession? Was it the result of treatment, or must we seek for the cause in some peculiarities attaching to the nature of the disease itself? The latter interpretation received some light from what was observed at the next visit, when the left great toe was found red, swollen and painful, the tendinous sheaths along the dorsum of the foot exhibited a like condition. Next day the right foot was similarly affected, though in a less degree. Two days ago a woman was admitted with the following symptoms: strong febrile action, redness and swelling of the left leg and foot, and severe pain in the entire upper extremity and trunk of the same side, the pain exciting cries on moving the parts. The patient especially suffered at the left side of the chest, but no abnormal sounds were audible. During the night cough came on, and in the morning a manifest souffle was audible in the supra spinal fossa, while around and in the infraspinal fossa was heard a fine subcrepitant râle. During the cough dry crepitating râle and bronchophony were heard, and two or three pneumonic sputa were expelled. This morning all signs of pneumonia have vanished. Here again I hesitate to attribute such prompt resolution to the treatment, especially as the apex was the part involved—a form of pneumonia regarded by all physicians as especially serious. I prefer explaining so rapid a termination by the nature of the pneumonia itself, which I regard as *rheumatic*.

Too partial to localization, practitioners are only accustomed to recognize rheumatism as affecting certain tissues, namely, the muscles, the aponeuroses, and the joints, and when it manifests itself elsewhere they call it by some other name. This is as if we only acknowledge syphilis as we observe it on the penis, and made so many distinct affections of its manifestations on the throat, skin, etc. But syphilis is recognized to be the disease in all these accidents, and why should it not be so with rheumatism? That it attacks all serous membranes is an indisputable fact since Bouillaud's beautiful researches, which have so much advanced the pathology of the heart. When in the course of acute articular rheumatism any of the serous membranes become affected, it is termed a pericarditis, pleuritis, meningisis, etc., according to the membrane attacked. This is right enough so far as it goes; but for the proper denomination of the disease, which is a kind of definition in a single word, we ought to add the epithet "rheu-

matic." When a man accustomed to suffer from rheumatism acquires, as a consequence of cold, a pain of the shoulder, hip, etc., he at once says he has an attack of rheumatism. But instead of this pain let there be a sore throat, and both patient and doctor cease to be logical, and call it angina instead of rheumatism; just if there were not a true rheumatic pain of the fibrous parts of the pharynx and palate, pain followed by fluxion, tumefaction, and redness of the pharyngeal mucous membrane. Do we not find rheumatism of the fibro-serous tissues of a joint accompanied by tumefaction of the subcutaneous cellular tissue, and bright redness of the skin; and why should we not admit the same influence in the delicate and vascular mucous membrane? For my part I should not hesitate to recognize a rheumatism in such a case, or, if you like it better, a rheumatic angina.

This distinction may serve for the explanation of the very great differences observed in the progress and termination of anginas, regarded by some physicians as being of the same nature. Thus, simple inflammation of the tonsils goes through all its stages, in spite of whatever treatment may be opposed to it, and a patient accustomed to such attacks will warn his attendants of the inutility of endeavoring to prevent the formation of abscess. A rheumatic angina, on the contrary, will often disappear in the course of a night, whatever the treatment adopted, leaving the physician astonished at his therapeutical success, the result, however, being really due to the essentially mobile character of the affection. Descending lower down in the digestive canal, we can explain those sudden diarrhœas which manifest themselves under the influence of a chill. The fibrous portions of the canal become painful, and the contractions more considerable and more frequent, a fluxionary movement being at the same time established towards the mucous membrane, the secretions of which are increased. Such diarrhœas are of short duration, unless, indeed, the rheumatism takes on, as it may anywhere, a chronic character.

After these considerations, does it seem strange to admit a rheumatic pneumonia? Suppose the pulmonary tissue, or what is the same thing, the fibrous tissue of the extremity of the bronchi, becomes seized with rheumatism, what are the immediate results? Tumefaction and congestion of the mucous membrane and an infiltration of the cellular tissue; that is to say, the anatomo-pathological conditions of œdema or of pneumonia in its earliest stage; with this peculiarity, that such lesions, participating in the fugacious nature of rheumatism, do not possess the fixity and persistence of the lesions of ordinary pneumonia. It is in cases like these that therapeutical results seem marvelous, and so they would in our own two cases had we not a better reason to give for the

rapidity of the cure. They were in fact the examples of rheumatic pneumonia, the one occurring in a young man who was at the same time suffering from rheumatism of both feet, and the other in a girl who had formerly had rheumatism, and, together with the pain in the chest, complained of rheumatic pains along the whole of the same side of the body. In similar cases, I shall not hesitate to admit the existence of rheumatic pneumonia, too happy only thus to complete my diagnosis, and to become enlightened as to the amount of importance that should properly attach to my therapeutics.—*London Lancet.*

Mercurial Tremor treated by Strychnine.—M. Troussean, the eminent physician of the Hotel Dieu, was lately induced to use strychnine in a case of mercurial tremor, by the good effects of that alkaloid in chorea. Sulphur baths, simple warm baths, opiates, &c., &c., had been used without success; the strychnine was then given in the following manner:—On the first day the patient took a spoonful of a syrup, containing one-fifth of a grain of sulphate of quinine; on the second day two spoonsful, one in the morning and the other at night. No physiological effects ensued. On the third and fourth day the patient took three spoonfuls per diem, at equal intervals in the course of the twenty-four hours. From that time he began to feel some stiffness in his limbs, and this increased on the fifth day, when four spoonfuls were taken. At last the dose was carried to *one grain*, which the man took for two days. On the expiration of the second of these two days, the patient made an effort to rise from his bed; but he had hardly lost hold of the railings when he was seized by a tetanic fit, and hurled like a projectile to the distance of a few steps, his face coming in contact with the ground. On the following days the doses were gradually diminished, and the mercurial tremor (which had become much less immediately the first physiological effects of the strychnine became apparent) completely disappeared on the tenth day after the commencement of the treatment by strychnine. The patient rested a few days without taking any medicinal substances, and left the hospital in excellent condition.—*Ibid.*

Worse than the "Maine Law."—The town of Clonmel, in Ireland, has lately enacted an edict worthy to figure in the code of Lycurgus. Every person detected in a state of intoxication will be led or carried, according to the gravity of the case, to the municipal prison; after which the nearest apothecary will be required to empty his stomach by a pump *ad hoc*. The operator will receive a fee of seven shillings and six pence. If this plan does not cure the intemperate, it will at least benefit the apothecaries.—*Ib.*

A Case of deep Wound of the Parotid Region, in which a Ligature was simultaneously applied to the Common and Internal Carotid Arteries. By Gurdon Buck, M. D., Surgeon to the New York Hospital.—Wm. McGraw, a laboring man, aged thirty years, and a native of Ireland, was admitted, July 5, 1848, into the Hospital with a deep wound in the right parotid region, that happened the day before from the explosion of a glass bottle containing gunpowder. The patient was holding the bottle at the time of the accident. The hæmorrhage, which was profuse, was arrested with much difficulty by sewing up tightly the external wound, after first extracting a fragment of glass one inch in length. The upper part of the neck and cheek, surrounding the wound, were a good deal swollen and tense. The wound itself was scarcely half an inch in length, and was situated half an inch anterior to the lobe of the ear. After enlarging its orifice, the finger passed directly inwards behind the ramus of the jaw, a depth of nearly two inches, and could be moved about with some freedom at the bottom of the wound. No hæmorrhage followed the exploration. The patient's mouth was drawn towards the left side, and much distorted. Deglutition was difficult, and his voice, hitherto distinct, was thick and not easily understood. Patient was directed to keep in bed, and to have cold water dressings applied to the part.

July 8th. On careful examination, the swelling, which had increased, presented a distinct pulsation at its central and most prominent part, showing conclusively the development of a false aneurism.

9th. At four o'clock, A. M., a very profuse hæmorrhage occurred, which could not be controlled by pressure over the wound, but was finally arrested by very firm compression applied to the common carotid. After being kept up by the Resident Surgeon and his assistants for nearly two hours, compression with sponge in the wound was substituted, and applied in the following manner. Three pieces of compressed sponge were successively passed down into the capity of the wound, and a fourth placed over the orifice. Two graduated compresses were applied over the sponges, and the whole maintained in place by the finger of an assistant. The patient was thus relieved of the painful pressure over the neck, and time was allowed to convene the Surgeons for an operation.

Operation at 9, A. M. For reasons that will be stated hereafter, it was decided to apply a ligature to the internal as well as the common carotid artery. The procedure was as follows:—

An incision three inches in length was made from a point a little above the ramus of the os hyoides downwards over the edge of the sterno-mastoid muscle. This muscle being laid bare, its

anterior edge was raised from its sheath and drawn outwards. A transverse venous branch that crossed the carotid at the point where it was to be tied, was secured by two fine ligatures and cut between them. The sheath of the common carotid was next opened; and a ligature passed beneath the artery, but not tied. The dissection was now carefully prosecuted upwards to the bifurcation, and the internal carotid exposed to the extent of three-fourths of an inch from its origin. In the first attempt to pass the armed needle under the artery, the patient became suddenly convulsed, his breathing stertorous, and his pulse feeble, evidently from disturbance of the pneumo-gastric nerve. Further proceedings were suspended to allow these alarming symptoms to subside, which required five or six minutes. A second attempt to pass the ligature was then successful without any accident. Before tying the knot a careful examination was made to ascertain that nothing was included in the ligature but the artery. The effect of cutting off the current of blood from the brain was also tested by tightening the thread over the finger placed in the noose with the artery. The ligature was then tied in the usual manner, and that around the common carotid was also secured an inch below its bifurcation and above the omohyoid muscle. The external wound was closed with sutures, and between them strips of muslin wet with collodion were applied. Ice-water dressings were directed.

July 11th. Patient is progressing favorably, his pulse is one hundred, full and strong. The swelling of the parotid region has diminished. Pus mixed with blood is freely secreted from the original wound.

14th. The swelling has still further subsided, and the suppuration from the original wound very much diminished.

20th. The ligature has come away from the internal carotid. No pulsation is perceptible either in the facial or temporal arteries of the right side.

21st. The ligature came away from the common carotid.

Aug. 5th. Patient has complained for the last four or five days of severe pain over the right side of the head and face, anterior to the ear, and has had frequent slight hemorrhage from both nostrils. The wounds have nearly healed. No excitement of pulse. Ordered cups and scarifications to the temples.

Aug. 12th. Since the last report blisters have been applied behind both ears, and with decided relief of the pain in the head. The epistaxis has recurred but once, and only in a slight degree. His bowels are constipated.

14th. The pain in the head has returned this morning with great severity. Constipation still persists in spite of active purgatives. Ordered a blister to be established on the forehead with aq. ammon. fort.; and croton oil, gutt. ij. to be taken, and followed by enema if necessary.

15th. The head is much relieved. The bowels have been freely evacuated. The blister to be continued behind the ear.

26th. The patient's general condition is improving; his bowels, however, still continue obstinately constipated, and require the most active purgatives to move them. The wounds have not yet entirely healed; that in the parotid region is converted into a fistula, from which saliva flows freely, especially during the act of mastication. The mouth, when opened, is still drawn to the left side; the right half of the tongue has become atrophied and flabby, presenting longitudinal wrinkles on its surface. Its appearance strangely contrasts with that of the left half, which retains its natural, plump and healthy condition.

Sept. 21st. Everything continued to progress favorably till this morning, when patient became feverish, and sick at his stomach. During an effort to vomit he was suddenly startled by a gush of arterial blood from the wound in the neck, amounting to about two ounces. Before assistance could reach him the hemorrhage ceased spontaneously.

Oct. 18th. No return of hemorrhage. The salivary fistula noticed above has closed under the influence of pressure applied with the end of the finger to the orifice of the fistula during meals. Patient was discharged cured this day.

Several months afterwards, when he presented himself for examination, the right half of the tongue was still found atrophied and shriveled, though the function of taste remained unimpaired. The mouth was drawn to the left side, distorting the face. His articulation continued thick and indistinct.

Remarks.—The situation and depth of the wound in the above case, as well as the profuseness of the hemorrhage and the extreme difficulty of controlling it by pressure, plainly indicated that a large artery had been divided. The external carotid artery and certain of its branches, as well as the internal carotid, lay close together in the region occupied by the track of the wound, and it was impossible to say which of them might be involved.

In the choice of means for arresting permanently the hemorrhage, the following considerations were carefully weighed:

1st. In reference to securing the divided vessels in the wound. This undoubtedly would have been the most reliable method, and is the one prescribed by the rules of surgical practice. It is not, however, always admissible. Obstacles may exist, depending on the inaccessible location of the wounded vessel, or other equally insurmountable difficulties. In this case the wounded vessels lay deep in a narrow space bounded anteriorly by the ramus of the lower jaw, and posteriorly by the mastoid process and the sterno-mastoid muscle, which presented unyielding barriers that forbade any distention of the edges of the wound, even had it been admissible to enlarge it by incision. The exposure of other larger

vessels to be wounded in attempting this operation, and the extreme difficulty of controlling the hemorrhage by compression of the common carotid during the operation; these were all weighty reasons that deterred from resorting to this method.

2d. Ligature of the common carotid. This is the resource heretofore most generally relied upon in wounds of the neck, when tying the wounded vessels has been inadmissible. Though it has succeeded in many cases, yet it has not unfrequently proved ineffectual, and that oftener, no doubt, than the records of surgery disclose. The free communication between the internal carotids of either side through the circle of Willis, permits a return current to be promptly established through the internal into the external carotid and its branches of the same side, after the ligature of the common trunk. This was illustrated in the writer's own experience a few years ago in a case of self-inflicted wound of the throat, exposing the left thyroid cartilage. A profuse secondary hemorrhage occurred at the expiration of five or six days, for which the common carotid artery was tied. One hour had scarcely elapsed before the hemorrhage recurred almost as profusely as at first. Compression kept up by means of a succession of assistants was relied on for three or four days longer, when a third repetition of the hemorrhage rendered it necessary to resort to other means. The original wound was now enlarged and explored, and after much difficulty the bleeding vessel was secured. It was found that a small false aneurism had developed itself at the bottom of the wound around the divided vessel. Another consideration that dissuaded from the operation of tying the common carotid artery alone in this case, was the fear entertained that the internal carotid might itself be wounded.

The novel operation which was resorted to in this instance and which was so successful, was thought to be adapted to any contingency that might exist. By cutting off simultaneously the direct current through the common carotid and the return current through the internal carotid, hemorrhage from a wounded branch of the external carotid would be effectually controlled; and in the event of a wound of the internal carotid, the circulation would be rendered stagnant in that vessel by the ligature applied to it near its origin, and the process for its permanent closure would be secured by the simultaneous ligature of the common carotid.

Other applications of this operation suggest themselves, and claim the serious consideration of practical surgeons; for instance, where destructive ulceration of the fauces invading the internal carotid or other arteries had given rise to alarming hemorrhage, it would be the surest reliance.

In the *London and Edinb. Monthly Journal of Med. Science*, vol. for 1842, p. 961, Mr. Syme has reported a remarkable case of aneurism of the internal carotid, which was recognized as such by

a pulsating tumor in the region of the tonsil, and in which he had tied the common carotid artery. The patient died suddenly and unexpectedly in thirty hours after the operation. The post-mortem examination corroborated the diagnosis, but did not explain the cause of death. Mr. S. remarks in reference to this case, that "the pulsation of the tumor continued after the operation, but was much less forcible." . . . . "The contents of the sac were coagulated, except at a narrow channel corresponding with the current through the artery, which, it may hence be inferred, had not been completely arrested. Indeed this was not and could not reasonably be expected when the free retrograde passage afforded by the anastomosing communications of the external carotid was taken into account."

Mr. Syme's remarks would apply with much greater force to the anastomosing communications between the internal carotids through the circle of Willis, by means of which the return current would be much more promptly established than through the anastomoses of the external carotids. To such a case as Mr. Syme's our operation, it is thought, would have been peculiarly applicable.

The atrophy of the right half of the tongue, following the operation in the case just narrated, is an interesting point, and one which might perhaps suggest the expedient of tying the lingual arteries as a remedy for hypertrophy of the tongue.—*New York Medical Times.*

New York Academy of Medicine.—On motion of the Secretary, Dr. Stone, of New Orleans, being present, was requested to give the Academy his views respecting yellow fever.

Dr. Stone, after an expression of thanks for the honor conferred upon him, proceeded to say, that in his opinion, yellow fever is a specific disease, the same in all latitudes and all longitudes, unmodified by topographical causes or changes of climate, but under all circumstances the same, identical and unchanged. He is not prepared to say that one cannot have it a second time, but these cases are very rare; for during a twenty-three years' residence in New Orleans, he has not seen a single instance. Those who believe in second attacks call other diseases yellow fever, as the bilious fever of the South, etc. When that fever is epidemic anything which disturbs the system develops it; at such seasons it is impossible to have any other disease. At such times many have the disease in a light manner—known to be such by the symptoms peculiar to its convalescence—yet such never have it again. Even accidents and injuries occurring at such times are sure to be followed by yellow fever, in from twenty-four to thirty-six hours.

The young Creoles are, many of them, educated in Paris, but after many years, ten or more, of absence, on their return do not have it, if they have been acclimated before their departure. All children have to be acclimated, but the disease may run out in several generations—it certainly is less virulent.

He has often noticed the fever in children in a house where the yellow fever was; but fortunately the disease was not suspected in them, and so they were let alone, and rarely required medicine.

Many attempts have been made by statistics to discover its *cause*, but, like cholera, it escapes observation. A warm climate is an essential element. A continued heat at a certain high degree was once supposed to be essential, but this is now disbelieved, for in 1847 it commenced early; in 1853 earlier, say in latter part of May, and June, when there was no steady heat; and we had a remarkably cold spring that year. This year he saw the pure and genuine fever on the 30th April. It occurred in persons coming from Pittsfield, and residing in unhealthy locations of the city. Moisture seemed not essential, for it raged equally in the high lands as the low—where the dry trade-winds blow, or where the air was damp. It is true that when it appears the rain usually commences; but New Orleans has daily showers at certain seasons, and yet without any disease. Dr. G. has seen three seasons in succession when there were all the peculiarities of the weather that are said to produce the fever—heat, moisture, etc.—present, when the season proved remarkably healthy. This year it was very dry, and the sugar cane died from want of moisture, and all were suffocated by dust, when the disease first appeared.

Many who investigate yellow fever, form theories, and afterwards hunt for facts, and they are apt to get hold of instances which favor their theories; and these, when arranged in a catalogue, appear quite formidable; but when investigated quite a different result is obtained. The very fact of its being identical in all latitudes, and varying so in regard to moisture, is sufficient proof that they have got at the causes, and that it is something which will probably never be remedied by art. There is no doubt that a filthy and unhealthy city will serve to spread the disease; whatever weakens the vital powers favors its spread. It does not, however, appear to give virulence to the disease—indeed, it appears in climates that are almost perfectly healthy, where there are no remittents or intermittents, nothing but accidental sickness.

As to its *mode of propagation*, some believe in its contagion; but it is incapable of generating its own poison under any circumstances. Were it so, being such a specific, marked and formidable disease, it could not but be evident. It is all around us, and we cannot so well observe as in smaller districts, where this fact is plainly to be proved. A vessel from Bremen with emigrants,

came from the South side of Cuba, and when a hundred miles from land, they took the fever, and many died. On landing some thirty were sent to the hospital, and put into the wards with the unacclimated, and many died—but no one took the fever. I did not even name its presence, for I knew it would not spread, as there was no epidemic atmosphere; and more than a month occurred before this epidemic did come. This was in June, 1849, and the first case originated in the city in July, and it was not till August that it could be said to be epidemic. When the Charity Hospital was moved, the first season that Dr. S. was at New Orleans, the house was crowded, and beds were made on the floors and in the entries, etc. Many died of yellow fever, the beds covered with excrements laid in the passage, indeed the filth was so great as to generate house-fever, but there was no epidemic in that neighborhood, and those lying around—the unacclimated—did not take the disease. There were many who took the house-fever, but escaped the yellow fever, which did not even mark the other diseases in the house with its own type.

There, again, the hospital was out upon a swamp, but the inhabitants around were comparatively more exempt than those who labored in various parts of the city.

The steamboats are said to carry the disease from the city to the various stopping places up the river, but when they get above Vicksburg it never takes. Fifty cases were left at Memphis by a boat in 1847, and yet it has never been known there before this year. In most of the cases you will find it at these places before the steamboat lands. They were landed at Memphis in the second and third stages of the disease. It was not till 1853 that it was supposed to be contagious, or, rather, infectious, terms which Dr. S. considers synonymous. Dr. S. also stated other instances in proof of its non-contagious character, and remarked that he believed that if all the facts which seem to prove the contagious properties of the disease were properly investigated, we should come to the conclusion that contagion has no effect whatever in increasing the number of victims to this disease.

Dr. S. thinks that *moral causes* have some influence in producing the disease; as, for instance, the moral effect of one case occurring in a family is sufficient to cause all other members to take it—but only in the yellow-fever region. Any excitement at such times is sufficient to create or develop it. It was noticeable that among the unacclimated—the Northerners and others who united together for self-protection—the nurses and assistants were the last to take it; while the timid, who shunned infected localities, who sneaked off to bed, who feared the night air, who deprived themselves of exercise by their seclusion, were, by these mental causes, the first to take it. In Norfolk, recently, it was believed at first, not to be personally contagious, but all felt that

they were shut up, obliged to stay and perish, and the moral effect was disadvantageous. It was difficult to get nurses to attend upon the sick. They did, however, in some instances, attend to their own relatives, but others were unnursed and neglected. Dr. S. thinks that the alarm which existed increased very much the number of fatal cases.

As to the *pathology* of yellow fever, Dr. Stone says that it has literally no anatomical character—it is a blood poison. In yellow fever proper there are no traces left to account for symptoms or death. Occasionally there are engorgements from the sequelæ—but none to account for the black vomit, etc. We must give up the idea of mucous inflammations. Dr. S. could never find anything after death that could account for a single symptom that could cause death. The fact of the mucous membrane being soft is accidental—it depends entirely upon the time and manner of death, and secretions of the stomach. Black vomit possesses no marked character to distinguish it from ordinary blood. Dr. S. once made some in the apothecary's shop, which was believed by the best observers to be black vomit proper. He thinks that the vomiting in this disease is merely nervous. There is, in fact, no irritability or tenderness of the stomach, but simply heightened nervous sensibility.

The straw color of the liver described by Louis, is owing to nothing more than a change in the fluids generally. The change in the hue of the skin is a little more manifest in the liver, which, in a healthy condition, is nearer the color of the blood. It is not the color of jaundice, but is of a dirty yellow, which is well represented around an ecchymosis when a change is taking place in the fluids through the influence of absorption.

Treatment.—Yellow fever is a self-limited disease; it is not to be treated—it is to be managed. All that is to be done is to keep the patient alive for a certain time, and he will get well.

The disease is ushered in with a chill or slight rigor, often scarcely noticeable, followed by heat in the forehead, pain in head, limbs and back. This is again followed by a hot fever, and if the patient be kept under cover, and carefully treated, these symptoms will quietly terminate in two or three days; but if left to themselves to toss about and not remain under cover, the sweating stage passes on for five or six days, and collapse, black vomit and death result.

The only treatment found by Dr. S. to be useful, is to favor the efforts of nature in prolonged sweating, calm and rest of the system, and the fever will generally be got rid of in the first two or three days. It terminates in favorable cases on or before the third day, leaving the skin natural. Those who treat it otherwise than expectantly do not understand the nature of the disease.

Among those who may be said to understand the disease, there

are two methods of treatment: the expectant—cups to temples to relieve cephalalgia, slight laxatives to open the bowels, hot baths under the bed-clothes. Others give quinine. Dr. S. was the first to do so, whoever has the credit, but no matter about that. The only difference is that they do not give it with any specific object. His method was a full dose at the beginning of the disease, but not afterward. Thus given it promoted and prolonged the sweating stage, and while this was kept up the patient was safe. It was remarked that they would get well without quinine where it was generally prescribed. He was physician for many years to a hospital where there were forty to fifty cases a day, and he noted that those in favor of this quinine treatment were about 10 per ct.

Dr. S. remarked that in 1847 he treated forty cases in succession by quinine, among mechanics, who had no nursing except what was provided by friends, and did not lose a single patient. It was in a favorable epidemic, but considering their destitution of proper nursing, deaths would have been as likely to occur as in a worse epidemic.

As to the use of *calomel* in this disease, there is no possible condition of the system where there could be any benefit derived from its use—there was no local disease. The liver has nothing to do with it. He knew this, for he had followed the patients of the Calomelites to the dead house in plenty. While serving as surgeon of the Charity Hospital, the medical side of the hospital was full, and there were several mechanics who applied for admittance, and wished to be treated by Dr. S.; and as he had some empty beds, he received them. But one was sent to the medical wards, and he gave him foot-baths, kept him warm, regulated his drinks, etc., and gave quinine. The attending physician came in the morning; he ordered a drachm of calomel, but Dr. S. put up magnesia. The next day he was better, and the doctor repeated the dose, but he took the liberty to repeat the magnesia. He got well, and thenceforward was one of the attending physician's 'brag cases,' for he dared not tell him of his doings. Then came new physicians from Paris, full of Broussais' theory, and they bled and boasted of their successes also for a while, and in truth they did succeed as well as the former. Then came Eclectics with fanciful theories; they gave a little calomel to disgorge the liver a little, cups a little, leeches a little, end with a result very little different from the others. In fact some will get well in spite of the treatment, and then again some forms of the fever are fatal in the beginning. When, however, they are brought side by side, and we can observe them *en masse*, we can more properly judge of the relative value of the different modes of treatment than in the isolated cases met with in ordinary practice. The difference is very manifest—all perturbating treatment is alike bad.

There are some peculiarities in the disease that might not at first strike one—the disturbed nervous system, and especially delirium—one of the worst symptoms. This may appear at first, but not usually. Its first evidence is restlessness and want of sleep; objects are seen very much as in *mania-a-potu*. Narcotics produce stupor and death, for the patients with this disease are peculiarly susceptible to morphine; stimulants are much better. You must watch to give the stimulants as early as possible; they then sweat off, and are relieved in twenty-four to thirty-six hours; but even then they must not be disturbed—if raised up they faint away. Perfect and absolute rest, body and mind, are indispensable. If they are excited the heat returns, and they die. Watch for sleeplessness, and give minute anodynes and stimulants, such as they are able to bear. Of those cases that run on and approach the period of black vomit, if managed properly as to drinks, by avoiding bitter infusions, etc., very many recover; and those that do not vomit would have the black vomit if they vomited at all. Some have a preference for certain kinds of drink, as porter; others prefer brandy, etc. Give those agreeable to the palate. As they approach the black-vomit period with previous restlessness and acid secretions, give some alkali, with minute doses (say a 20th or 30th of a grain) of morphine, with champagne, ale, beef-essence, etc. Impart to the patient a feeling of safety and security. And yet I thought in proportion to the mildness of the disease was the danger; for quiet is absolutely necessary, and coercion does not answer. The patient is to be managed, not treated.

Foot-baths under the clothes will often produce favorable sweats. When in a state of dry heat forced perspiration is bad; sponging with tepid water is then better. The douche is but of temporary benefit, and the subsequent reaction leaves the patient worse. Sponging with lemon-juice, sweet-oil and salt is used by the Creoles and Spaniards, but pure water is better. All that is to be done is to ease them through.

Dr. Stone concluded by remarking that he had given the prominent heads of treatment, with little amplitude, for fear of fatiguing the Academy. He proposed, however, to write it down, and publish it in some magazine.

Dr. Gardner inquired in what sense Dr. Stone used the word 'acclimation?'

Dr. Stone replied that it meant simply having had the fever. No one was secure till he had had it.

Dr. White then referred to the communication read before the Academy some years since on the same subject by Dr. A. Smith, of Texas, and published in the first volume of the Transactions of the Academy, and remarked upon the similarity of his views with those of Dr. Stone. Dr. Smith then gave a graphic description

of the difference between yellow fever and bilious fever, and among the pathognomic symptoms, stated that yellow fever was characterized by only one paroxysm. Dr. Smith and Dr. Stone also agree as to the treatment, both being opposed to the perturbing practice, and both advocate careful nursing, and the 'expectant' plan. Dr. W. wished to ask whether the observations of Dr. Stone corroborate the statement of Dr. Smith that yellow fever is uniformly characterized by one paroxysm only?

Dr. Stone replied that there is literally but one paroxysm; but if convalescence be disturbed, there is a return of the first stage which may be called a relapse.

Dr. Gardner stated that Dr. Ashbel Smith laid great stress on covering, and said the patient should be enveloped in blankets and carefully excluded from the air. Was this correct, and what drinks are proper?

Dr. Stone.—Careful covering of the entire body and limbs is absolutely requisite, but not to swelter under too much covering. If the hands were but exposed, sometimes the heat would return and a relapse ensue. Some mild diaphoretics may be given; such drinks as the patients desire; one year all want brandy and water, other years malt liquors. Give that which is desired, and carefully avoid even the nervous shock caused by a bitter or disagreeable medicine. Sponging the body under the clothes, ice-water to head, generally were followed by reaction and more pain. Dr. Cartwright had pursued the opposite plan of enveloping the head in warm fomentations.

Dr. Detmold wished to ask a few questions: 1. If there was no anatomical change observal after death by yellow fever as hemorrhage, etc.? 2. Was there in the South any popular or scientific belief that the appearance of frost arrested the progress of the disease? 3. If the 'breaking bulk' on board the vessel supposed to have imported the disease into Norfolk had anything to do with the breaking out of the disease there?

Dr. Stone replied: 1st. The black vomit left no trace behind. There were some who, making examinations, always saw just what they wanted to; others were unaccustomed and were deceived, thinking they saw softening, etc., when they saw only ordinary conditions, perhaps slightly modified. The black vomit, no doubt, was an hemorrhage; but it all washed off, leaving the stomach redder or paler, as it appeared in other diseases. The yellow liver he regarded as merely an exaggeration of the same tint observed on the skin and elsewhere. 2d. Frost does not check the disease. As a general rule, when the epidemic came early it left early, and when late it left late. In 1847 it was cut short in mid-summer. The disease has never renewed after it has ceased, by the return of people from their summer retreats, as it would if contagious. 3d. As to the breaking of bulk of ship in

Norfolk, he had made many investigations, but could only obtain second-hand information. Dr. Upshur, now dead, informed him that the yellow fever was in Gosport before the arrival of the Franklin, and that this vessel had no yellow fever on board, and was twenty-eight days in quarantine.

The Norfolk epidemic was the identical yellow fever seen the same in every locality, but in a severer form than ordinary. It first commenced at Rio in 1851, then spread throughout Brazil, Para, northern part of South America, going into the country and the small villages; into the West Indies, into the plantations heretofore unknown to be ever affected, attacking negroes (generally enjoying immunity;) into the pine woods of Alabama, and the heights between this State and Georgia; the next year throughout Georgia and South Carolina; this year in Memphis, where it never was before epidemic, and Norfolk. It is creeping over the country, and there is some reason to fear (why, cannot be said) that next year it may reach New York.

Dr. Corson wished to know the doses of quinine which Dr. S. gave, and the vehicle.

Dr. Stone replied that he usually gave a single dose of fifteen or twenty grains, according to circumstances, at the outset, perhaps ten grains more twelve hours after, but none unless on the first day; and the second day it is entirely useless, and after that actually injurious, although they bear it better than any other remedy. It causes vomiting when given late, and is not necessary, for its effects last several hours after its administration.

Dr. S. regretted the necessarily imperfect and desultory manner in which he had been obliged to make his remarks, but he hoped that on drawing up his paper, some weeks hence, he might be enabled to make it more consecutive and logical. He thanked the Academy for the honor they had done him in hearing him.—*New York Medical Times.*

A Novel Operation for Ectropion.—M. Nélaton, of Paris, has lately had recourse to the following operative measures in a very bad case of ectropion. The patient has a child affected with this deformity on each side, but the left upper lid was the worst. The eyes were half open, and the cornea exposed; the free margin of the lid and the cilia were turned towards the eyebrow and the tarsal cartilage was luxuated in such a way that its superior border had become interior. The cause of this state of things could not be learned, but it was suspected that a burn was the origin of it, as the skin was retracted and puckered. The external portion of the lid had escaped, but the destruction was complete towards the inner canthus, the free margin being only a few lines from the eyebrow.

M. Nélaton, considering that nodular retraction lasts only a certain time, judged that by stretching the parts for the space of about one year, a cicatrix might be obtained which would have lost the tentency to contraction. He therefore made a horizontal incision in the groove which separates the eyebrow from the upper lid, and the latter, having thus been freed, was brought in contact with the lower lid. The margins of the upper and lower palpebræ were then pared, for the space of about four lines external to the punctum, and kept together by three stitches. In order to reduce the luxated tarsal cartilage a strong needle was passed from below upwards through the lower lid and the cartilage, and the two parts were thus kept *in situ*. The stitches were removed three days after the operation, and the needle two days later.

The immediate results of the operation were satisfactory. The margins of the lids adhered completely on the internal half of the palpebræ fissures, the external half being open and allowing the mucous secretion to escape. The upper lid was, in this external half, noticed to ride somewhat on the lower—a circumstance which was ascribed to œdema; and as granulations were suspected on the conjunctiva, M. Nélaton cauterized with the nitrate of silver. The proceedings were completed on the 4th of February, 1854, and the patient was then freed from all constraint, and expected to spend a year at least before an effort should be made to break up the union of the lids, when retraction might no longer be apprehended, and the ectropion be completely cured. Typhoid fever, however, carried off the patient two months after the operation, hence its results could not be ascertained. We are afraid the cornea would have been found somewhat injured by the protracted immobility, nor is it at all improbable that unpleasant adhesions might have formed.—*London Lancet.*

On Wines in Relation to the Amount of Phosphorus they Contain.—Dr. Kletzinsky, as the result of an extensive comparative analysis of different wines, draws the following conclusions as to their phosphatic contents:

1. Phosphate of magnesia is a constant constituent part of wine, independently of locality, goodness or age.

2. The quantity of phosphoric salts undergoes considerable variations.

3. These hold a very direct and certain relation to the goodness of the wine; so that their quantitative determination is, perhaps, a better measure of this than is that of the alcohol or extractive.

The therapeutical employment of wines has hitherto been guided by the amount of extractive, alcohol and free acid they contain: but this additional element, owing to the agency of phosphorus in

the reparation of the nervous, muscular, and osseous structures, is of no less importance in the direction of our choice. Re-convalescence in typhus, or exhausting exudative processes, the so-called adynamiæ, and the crowd of chronic affections that, chemically speaking, depend upon a poverty of phosphorus, exhibiting themselves, sooner or later, in the form of rickets, scrofula or neuralgia, indicate the employment of wines containing a large proportion of phosphorus. In vain do we endeavor to relieve diseases characterized by an excessive consumption phosphorus, (*Phosphoro-phthisis,*) by the administration of calcined oyster shells, bone-ash, the osteolithes, and phosphorites of the mineralogists, or any other combination of inorganic phosphorus with lime. They pass through the alimentary canal, unabsorbed and unassimilated, the possibility of assimilation depending upon organic combinations.

The author gives a tabular view of the results of his analysis of the several wines, exhibiting their per centage of alcohol, extractive and phosphates. As far as the last are concerned we find that Tokay contains 5 per 1000, Menes and Malaga, 4; Maderia and Sherry, 3¾; Santorino, 3½; Cyprus, 3¼; Cape, 2⅛; Château-Lafitte, 2; Rhenish Wines, 1½; Champagne, 1¼.—*London Lan.*

Turning by External Manipulation of the Abdomen.—M. Mattei, a Corsican Professor of Midwifery, draws attention to the feasibility of this procedure in rectifying the position of the child. By its means, he says he has frequently, in pelvic presentation, been enabled to raise the pelvis, and press down the head into its proper position, repeated attempts to do this causing no ill consequences. The diagnosis of the position of the child by palpation of the abdomen and auscultation is easy, and the performance of the operation at the latter end of pregnancy is not difficult, if attempted before the child is engaged within the pelvis. During the eighth, or at the commencement of the ninth month, is the preferable period.—(*Gazette Médicale.* No. 23.)

[This mode of turning has been frequently resorted to in Germany.]—*Ibid.*

Aconite in Ephidrosis.—M. Imbert-Gourbeyne relates an interesting case of idiopathic general sweating, which, after continuing a long period, was immediately relieved by a few spoonsful of syrup of aconite, which he gave from recollection of the great benefit Dupont stated he had derived from this drug in a similar case. In another instance he found the same remedy efficient in the sweating of phthisis, when given for a coincident neuralgia.—(*Gaz. Médicale.* Nos. 21 and 22.) *Ibid.*

Natural Course of Disease.—Dr. Tholozan observes that the necessities of war furnish us with the opportunity of studying disease when left to Nature. If the surgeon pay to this study a sufficient attention, science and art will be gainers; for it will often occur to him to see diseases that are supposed to require the most active treatment, cured under the most unfavorable circumstances by the sole efforts of Nature. This arises from even the severest affections having their slight causes; and if, on the other hand, we may observe in the soldier disease in its most intense form, the multiplication of cases of the same kind, on the other hand, allows us to observe the diseases of armies in every shade of intensity.—(*Gazette Médicale.* No. 23.) *Ibid.*

Rapid Detection of Sugar.—M. Botte has several times employed the method suggested by Liebig of quickly detecting sugar. A small quantity of ox-gall is dissolved in the suspected fluid in a test-glass, and a quantity of concentrated sulphuric acid equal in amount to that of the fluid in the glass is rapidly added, care being taken to pour it along the side of the glass. If sugar is present a beautiful purpurine is immediately produced.—(*Rev. Médicale*, June: p. 685.) *Ibid.*

Blistering Plaster Prepared with Chloroform.—Dr. Landerer, of Athens, recommends, as an improved mode of making blistering plaster, the preliminary digestion of the powdered cantharides for several days, at a gentle heat, in a sufficiency of chloroform to moisten it. The mass is then to be added to the plaster half cold, taking care to avoid inhaling the chloroform which becomes volatilized.—(*Gaz. des Hôp.* No. 69.) *Ibid.*

Tincture of Iodine in Bubo.—Mr. Joliclerc states as the result of much observation, that tincture of iodine is the best application in bubo, preventing or dissipating fluctuation, and facilitating healing if the bubo be already open. He applies it by gentle friction, so as to avoid vesication.—(*Ibid.*)

A Useful Hœmostatic.—M. Morel, a military pharmacien, has prepared the following fluid, which has often been found highly useful:—Tannic acid 1·20, alum 1, rose-water 40 part.—(*Ibid.*)

Cold Irrigations in Convulsions of Children.—On the strength of three cases in which its employment was attended with remarkable success, M. Larasque strongly recommends to notice the practice of irrigating the head in convulsions, with a continuous stream of water the size of the little finger. He employs about 2 quarts of water.—*Rev. Médicale.* 1855. p. 264. M. Schutzenberger, of Strasburg, also relates two well-marked cases (*Bull de Théra.* T. 48. p. 512,) of hydrocephalus, in which recovery was attributed to repeated affusions performed by a watering-pot.—*London Lancet.*

On Puerperal Convulsions prior to Labor.—During some recent clinical remarks, M. Dubois observed that it was formerly generally believed, and is so still by many, that in these cases we should induce premature labor. He does not agree to this view, and thinks the practice may even be injurious. It is indeed useless, because labor always comes on of itself, under the influence of convulsion, and it is injurious by reason of its irritating the uterus and thus aggravating the convulsions. For the same reasons he objects to the use of ergot. He employs general bleeding, as far as the strength will permit it, leeches behind the ears, and purgatives. Of these last, calomel and jalap, mixed up with honey, and laid on the tongue every hour till it operates, is the best. Sinapisms should also be applied to the feet, and ice to the head. The only operation justifiable is the application of the forceps, when the head is engaged in the pelvis, and solely in aid of the last expulsive efforts.—(*Gaz. des Hôp.*) *Ibid.*

Test for Purity of Cod-Liver Oil.—M. Berthé, as the result of numerous researches, states that when we let a drop of concentrated sulphuric acid fall on some drops of pure cod-liver oil contained in a glass plate, placed on a sheet of white paper, an aureola of the most beautiful violet is formed, which soon passes into a crimson. After a few minutes the mixture becomes brown.—(*Bulletin de l'Acad.* T. xx. 877.) *Ibid.*

Caution in Searching for Poisons.—Dr. Buchner observes that in the search for arsenic, while mere traces, only distinguishable by the most delicate tests, may be discoverable in the stomach and upper part of the intestinal canal, the poison may be often easily detected in the lower part of the canal, and that in proportion as the rectum is approached as also in the liver.—(*Report. fur Pharm.* 1855. No. 3.) *Ibid.*

Turpentine in Carbuncular Diseases.—Dr. Thielmann states that he has employed this substance with great success in a case of malignant pustule, and in a great number of cases of carbuncle, amounting to 342 since 1837. The treatment has been merely local, unless suppurative fever or other general symptoms called for interference. The turpentine was applied in every stage of the disease on a thick pad of charpie, evaporation being prevented by oiled silk. In most cases a slight burning is produced, which only lasts for a few minutes. The epidermis becomes softened, and the mortified parts are quickly separated, without the necessity of the crucial incision. After the seperation it is still continued, as under its influence the healing is rapid. If, after each dressing (these being repeated night and morning,) the patient complains of a continual burning, the lotion is to be sufficiently diluted with chamomile tea, or the dressing is to be performed with this alone. The turpentine is suitable to all sloughy and atonic ulcers. The following is the formula for the preparation of the application: Mix ʒj. of oil of turpentine with the yolk of an egg, and then add spirit of camphor ʒj., chamomile tea ℔j.—(*Berlin Medicin Zeitung.*) *London Lancet.*

Local Use of Iodine.—Dr. Mikschik states that he has derived great advantage from the tincture of iodine as an emenagogue, applying it externally to the os uteri. Cases which had long resisted all other means, have yielded to the application after the third day. He has not found the advantages that Boinet says attends its use in vaginal catarrh, and from the temporary irritation it produces, it should be avoided in pregnancy, and when the uterus is inflamed. As a means of dispersing organic exudations he much prefers lotions (iod. potass. ʒj., iodin. gr. x., aquæ ℔j.) to ointments. They should be applied on compresses which are to be covered by a cataplsam.—(*Wein Wochenscrift.* 1855. No. 22.) *Ibid.*

Cæsarean Operation.—Professor Stoltz, of Strasbourg, after relating a case that has occurred to himself, in which this operation has been performed twice upon the same subject with success, refers to no less than seventeen similar cases which have been authentically recorded during the present century. He protests against the rule, now absolute in Paris, on account of the invariable mortality of this operation there, of preferring induction of premature labor to the Cæsarean section, being made applicable to the country at large.—(*Gaz. Méd.* 1855. No. 25.) *Ibid.*

On Fluor Albus.—From the examination of a large number of cases at La Charité, Berlin, Dr. Beigel arrives at the following conclusions:

1. The secretion of the uterus is always slightly alkaline, that of the vagina and urethra acid, and that of the Duverney glands neutral. If the secretion is found sometimes acid and sometimes alkaline, this depends upon whether the uterus or the vagina furnishes the largest share. The discharge is, however, almost always sour, as the acid reaction of the vaginal secretion is too considerable to be neutralized by the uterine fluid. It is impossible to declare the infectious or inocuous character of the discharge from its acidity or alkalescence.

2. Great viscidity (*Zähigkeit*) of the secretion indicates that it is uterine.

3. Milk-white secretion, that is, not viscid or filiform, denotes simple vaginal catarrh.

4. A puriform condition results from acute or chronic gonorrhœa, but may also depend upon other conditions. In the first case the urethra and Duverney's glands are especially affected, but not so in the others.

5. The microscope enables us to distinguish whether the discharge proceeds especially from the urethra or the vagina, and also whether it consists merely in an increased separation of epithelial cells (simple catarrh), or is accompanied by the formation of pus cells (blenorrhœa).

6. The author has carefully sought for, without ever finding, the trichomonas vaginalis, which Donné states to be characteristic of infecting flour albus; but the changed epithelial cells, enclosed in tough mucus, bear a great resemblance to the figures he has given.—(*Monatsch. fur Geburtsk.* Band V. 459.) *London L.*

Formula of Chloroform.—M. Dorvault states that chloroform is easily soluble in water, one part by weight to the 100. When more considerable quantities are required, the Commission of the Society of Pharmacy recommends the following formula: Chloroform 2 to 4 parts, sugar in lumps 12, gum Arabic 5 to 10, and water 100 parts. Pour the chloroform on the sugar placed in a mortar; add next the gum, and then gradually the water, rubbing well. M. Stanislaus Martin suggests the following as preferable: Chlorof. 2 to 6 gram., 1 yolk of egg, 30 gram. of syrup, and 150 of water. Mix the egg with the water, and strain, and then add the syrup and chloroform. The egg is more promptly deposited in proportion to the quantity of chloroform used, but carries no chloroform down, and on shaking the mixture becomes uniform.—(*Bull de Thérap.*) *Ibid.*

On Excessive Vomiting During Pregnancy.—In an interesting thesis upon the non-coercible vomiting in pregnancy, and especially in relation to the induction of artificial delivery, M. Castaya has collected 58 cases that have been published by various authors. He distributes these, according to their mode of termination, into 5 groups:

1. Cases which proved fatal (24), without abortion occurring, and notwithstanding every variety of treatment.

2. Cases of recovery (11), after spontaneous abortion, or after the infant had died, although its expulsion was some time delayed.

3. Cases of recovery (3), without spontaneous abortion.

4. Fatal cases (3), notwithstanding spontaneous abortion; this occurring too late to be of avail, the patient's powers being exhausted.

5. Cases of artificial abortion (17). These are subdivided into two groups, successful (14), and unsuccessful (3). In 3 cases pregnancy was sufficiently advanced to admit of a living child being born, as well as of the mother's life being saved. Thus, in 58 cases, we have 30 deaths, and 28 recoveries. Of these last, 11 cases were due to spontaneous abortion, 3 to the medicines employed, and 14 to the operation.—(*Gaz. des Höp.* 1855. No. 85.) *London Lancet.*

Tincture of Benzoin in Chapped Nipples.—M. Bourdel states this is the best application, whatever the extent or duration of the fissure may be. After suckling it should be freely applied with a pencil. The first application causes a burning pain for a quarter of an hour, which, however, is usually bearable, and future applications give relief instead of pain. It need not be wiped off before the infant sucks.—(*Jour. de Ch. Méd.* July. p 436.) *Ib.*

Oxalate of Potass in Puerperal Diseases.—Dr. Ritter von Brenner strongly recommends this substance in inflammation of the peritoneum, uterus, or ovary, and especially in the metroperitonitis of puerperal women. The formula is ℞ Aq. dist. ʒ vi., oxal. pot. vi., sacch. ʒij. M. A spoonful every hour.—(*Buchner's Report.* 1855. No. 4.) *Ib.*